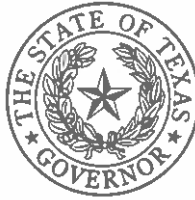


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GOVERNOR GREG ABBOTT

July 29, 2021

FILED IN THE OFFICE OF THE  
SECRETARY OF STATE

3:15 PM O'CLOCK

JUL 29 2021

Secretary of State

Mr. Joe A. Esparza  
Deputy Secretary of State  
State Capitol Room 1E.8  
Austin, Texas 78701

Dear Deputy Secretary Esparza:

Pursuant to his powers as Governor of the State of Texas, Greg Abbott has issued the following:

Executive Order No. GA-38 relating to the continued response to the COVID-19 disaster.

The original executive order is attached to this letter of transmittal.

Respectfully submitted,

A handwritten signature in cursive script, reading "G. Davidson".

Gregory S. Davidson  
Executive Clerk to the Governor

GSD/gsd

Attachment

# Executive Order

BY THE  
GOVERNOR OF THE STATE OF TEXAS

Executive Department  
Austin, Texas  
July 29, 2021

## EXECUTIVE ORDER GA 38

*Relating to the continued response to the COVID-19 disaster.*

---

WHEREAS, I, Greg Abbott, Governor of Texas, issued a disaster proclamation on March 13, 2020, certifying under Section 418.014 of the Texas Government Code that the novel coronavirus (COVID-19) poses an imminent threat of disaster for all Texas counties; and

WHEREAS, in each subsequent month effective through today, I have renewed the COVID-19 disaster declaration for all Texas counties; and

WHEREAS, from March 2020 through May 2021, I issued a series of executive orders aimed at protecting the health and safety of Texans, ensuring uniformity throughout Texas, and achieving the least restrictive means of combatting the evolving threat to public health by adjusting social-distancing and other mitigation strategies; and

WHEREAS, combining into one executive order the requirements of several existing COVID-19 executive orders will further promote statewide uniformity and certainty; and

WHEREAS, as the COVID-19 pandemic continues, Texans are strongly encouraged as a matter of personal responsibility to consistently follow good hygiene, social-distancing, and other mitigation practices; and

WHEREAS, receiving a COVID-19 vaccine under an emergency use authorization is always voluntary in Texas and will never be mandated by the government, but it is strongly encouraged for those eligible to receive one; and

WHEREAS, state and local officials should continue to use every reasonable means to make the COVID-19 vaccine available for any eligible person who chooses to receive one; and

WHEREAS, in the Texas Disaster Act of 1975, the legislature charged the governor with the responsibility "for meeting ... the dangers to the state and people presented by disasters" under Section 418.011 of the Texas Government Code, and expressly granted the governor broad authority to fulfill that responsibility; and

WHEREAS, under Section 418.012, the "governor may issue executive orders ... hav[ing] the force and effect of law;" and

WHEREAS, under Section 418.016(a), the "governor may suspend the provisions of any regulatory statute prescribing the procedures for conduct of state business ... if strict compliance with the provisions ... would in any way prevent, hinder, or delay necessary action in coping with a disaster;" and

WHEREAS, under Section 418.018(c), the "governor may control ingress and egress to

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SECRETARY OF STATE  
3:15pm O'CLOCK

JUL 29 2021

Governor Greg Abbott  
July 29, 2021

Executive Order GA-38  
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and from a disaster area and the movement of persons and the occupancy of premises in the area;" and

WHEREAS, under Section 418.173, the legislature authorized as "an offense," punishable by a fine up to \$1,000, any "failure to comply with the [state emergency management plan] or with a rule, order, or ordinance adopted under the plan;"

NOW, THEREFORE, I, Greg Abbott, Governor of Texas, by virtue of the power and authority vested in me by the Constitution and laws of the State of Texas, do hereby order the following on a statewide basis effective immediately:

1. To ensure the continued availability of timely information about COVID-19 testing and hospital bed capacity that is crucial to efforts to cope with the COVID-19 disaster, the following requirements apply:
  - a. All hospitals licensed under Chapter 241 of the Texas Health and Safety Code, and all Texas state-run hospitals, except for psychiatric hospitals, shall submit to the Texas Department of State Health Services (DSHS) daily reports of hospital bed capacity, in the manner prescribed by DSHS. DSHS shall promptly share this information with the Centers for Disease Control and Prevention (CDC).
  - b. Every public or private entity that is utilizing an FDA-approved test, including an emergency use authorization test, for human diagnostic purposes of COVID-19, shall submit to DSHS, as well as to the local health department, daily reports of all test results, both positive and negative. DSHS shall promptly share this information with the CDC.
2. To ensure that vaccines continue to be voluntary for all Texans and that Texans' private COVID-19-related health information continues to enjoy protection against compelled disclosure, in addition to new laws enacted by the legislature against so-called "vaccine passports," the following requirements apply:
  - a. No governmental entity can compel any individual to receive a COVID-19 vaccine administered under an emergency use authorization. I hereby suspend Section 81.082(f)(1) of the Texas Health and Safety Code to the extent necessary to ensure that no governmental entity can compel any individual to receive a COVID-19 vaccine administered under an emergency use authorization.
  - b. State agencies and political subdivisions shall not adopt or enforce any order, ordinance, policy, regulation, rule, or similar measure that requires an individual to provide, as a condition of receiving any service or entering any place, documentation regarding the individual's vaccination status for any COVID-19 vaccine administered under an emergency use authorization. I hereby suspend Section 81.085(i) of the Texas Health and Safety Code to the extent necessary to enforce this prohibition. This paragraph does not apply to any documentation requirements necessary for the administration of a COVID-19 vaccine.
  - c. Any public or private entity that is receiving or will receive public funds through any means, including grants, contracts, loans, or other disbursements of taxpayer money, shall not require a consumer to provide, as a condition of receiving any service or entering any place, documentation regarding the consumer's vaccination status for any COVID-19 vaccine administered under an emergency use authorization. No consumer may be denied entry to a facility financed

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SECRETARY OF STATE  
3:15 PM O'CLOCK

JUL 29 2021



Governor Greg Abbott  
July 29, 2021

Executive Order GA-38  
Page 3

- in whole or in part by public funds for failure to provide documentation regarding the consumer's vaccination status for any COVID-19 vaccine administered under an emergency use authorization.
- d. Nothing in this executive order shall be construed to limit the ability of a nursing home, state supported living center, assisted living facility, or long-term care facility to require documentation of a resident's vaccination status for any COVID-19 vaccine.
  - e. This paragraph number 2 shall supersede any conflicting order issued by local officials in response to the COVID-19 disaster. I hereby suspend Sections 418.1015(b) and 418.108 of the Texas Government Code, Chapter 81, Subchapter E of the Texas Health and Safety Code, and any other relevant statutes, to the extent necessary to ensure that local officials do not impose restrictions in response to the COVID-19 disaster that are inconsistent with this executive order.
3. To ensure the ability of Texans to preserve livelihoods while protecting lives, the following requirements apply:
- a. There are no COVID-19-related operating limits for any business or other establishment.
  - b. In areas where the COVID-19 transmission rate is high, individuals are encouraged to follow the safe practices they have already mastered, such as wearing face coverings over the nose and mouth wherever it is not feasible to maintain six feet of social distancing from another person not in the same household, but no person may be required by any jurisdiction to wear or to mandate the wearing of a face covering.
  - c. In providing or obtaining services, every person (including individuals, businesses, and other legal entities) is strongly encouraged to use good-faith efforts and available resources to follow the Texas Department of State Health Services (DSHS) health recommendations, found at [www.dshs.texas.gov/coronavirus](http://www.dshs.texas.gov/coronavirus).
  - d. Nursing homes, state supported living centers, assisted living facilities, and long-term care facilities should follow guidance from the Texas Health and Human Services Commission (HHSC) regarding visitations, and should follow infection control policies and practices set forth by HHSC, including minimizing the movement of staff between facilities whenever possible.
  - e. Public schools may operate as provided by, and under the minimum standard health protocols found in, guidance issued by the Texas Education Agency. Private schools and institutions of higher education are encouraged to establish similar standards.
  - f. County and municipal jails should follow guidance from the Texas Commission on Jail Standards regarding visitations.
  - g. As stated above, business activities and legal proceedings are free to proceed without COVID-19-related limitations imposed by local governmental entities or officials. This paragraph number 3 supersedes any conflicting local order in response to the COVID-19 disaster, and all relevant laws are suspended to the extent necessary to preclude any such inconsistent local orders. Pursuant to the legislature's command in Section 418.173 of the Texas Government Code and the State's emergency management plan, the imposition of any conflicting or inconsistent limitation by a local governmental entity or official constitutes a "failure to comply with" this executive order that is subject to a fine up to \$1,000.

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3:15pm O'CLOCK

JUL 29 2021

Governor Greg Abbott  
July 29, 2021

Executive Order GA-38  
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4. To further ensure that no governmental entity can mandate masks, the following requirements shall continue to apply:
  - a. No governmental entity, including a county, city, school district, and public health authority, and no governmental official may require any person to wear a face covering or to mandate that another person wear a face covering; *provided, however, that*:
    - i. state supported living centers, government-owned hospitals, and government-operated hospitals may continue to use appropriate policies regarding the wearing of face coverings; and
    - ii. the Texas Department of Criminal Justice, the Texas Juvenile Justice Department, and any county and municipal jails acting consistent with guidance by the Texas Commission on Jail Standards may continue to use appropriate policies regarding the wearing of face coverings.
  - b. This paragraph number 4 shall supersede any face-covering requirement imposed by any local governmental entity or official, except as explicitly provided in subparagraph number 4.a. To the extent necessary to ensure that local governmental entities or officials do not impose any such face-covering requirements, I hereby suspend the following:
    - i. Sections 418.1015(b) and 418.108 of the Texas Government Code;
    - ii. Chapter 81, Subchapter E of the Texas Health and Safety Code;
    - iii. Chapters 121, 122, and 341 of the Texas Health and Safety Code;
    - iv. Chapter 54 of the Texas Local Government Code; and
    - v. Any other statute invoked by any local governmental entity or official in support of a face-covering requirement.

Pursuant to the legislature's command in Section 418.173 of the Texas Government Code and the State's emergency management plan, the imposition of any such face-covering requirement by a local governmental entity or official constitutes a "failure to comply with" this executive order that is subject to a fine up to \$1,000.

- c. Even though face coverings cannot be mandated by any governmental entity, that does not prevent individuals from wearing one if they choose.
5. To further ensure uniformity statewide:
  - a. This executive order shall supersede any conflicting order issued by local officials in response to the COVID-19 disaster, but only to the extent that such a local order restricts services allowed by this executive order or allows gatherings restricted by this executive order. Pursuant to Section 418.016(a) of the Texas Government Code, I hereby suspend Sections 418.1015(b) and 418.108 of the Texas Government Code, Chapter 81, Subchapter E of the Texas Health and Safety Code, and any other relevant statutes, to the extent necessary to ensure that local officials do not impose restrictions in response to the

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JUL 29 2021

Governor Greg Abbott  
July 29, 2021

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COVID-19 disaster that are inconsistent with this executive order, provided that local officials may enforce this executive order as well as local restrictions that are consistent with this executive order.

- b. Confinement in jail is not an available penalty for violating this executive order. To the extent any order issued by local officials in response to the COVID-19 disaster would allow confinement in jail as an available penalty for violating a COVID-19-related order, that order allowing confinement in jail is superseded, and I hereby suspend all relevant laws to the extent necessary to ensure that local officials do not confine people in jail for violating any executive order or local order issued in response to the COVID-19 disaster.

This executive order supersedes all pre-existing COVID-19-related executive orders and rescinds them in their entirety, except that it does not supersede or rescind Executive Orders GA-13 or GA-37. This executive order shall remain in effect and in full force unless it is modified, amended, rescinded, or superseded by the governor. This executive order may also be amended by proclamation of the governor.



Given under my hand this the 29th  
day of July, 2021.

A handwritten signature of Greg Abbott in black ink.

GREG ABBOTT  
Governor

ATTESTED BY:

A handwritten signature of Joe A. Esparza in black ink.  
JOE A. ESPARZA  
Deputy Secretary of State

FILED IN THE OFFICE OF THE  
SECRETARY OF STATE  
3:15pm O'CLOCK

JUL 29 2021



**SPECIAL MEETING OF BOARD OF TRUSTEES, EL PASO INDEPENDENT SCHOOL DISTRICT**

**AUGUST 17, 2021**

**1:30 PM**

**EPISD ADMINISTRATION BUILDING**

**1014 NORTH STANTON STREET**

**EL PASO, TEXAS**

**Announcement of Meeting/Agenda**

**As Directed Under the Provisions of the**

**Texas Open Meetings Act,**

**Texas Government Code, Chapter 551**

If, during the course of the meeting covered by this Notice, the Board of Trustees should determine that a closed or executive meeting or session of the Board of Trustees is required, then such closed or executive meeting or session as authorized by the Texas Open Meetings Act, Texas Government Code Section 551.001 et seq., or Texas Government Code 418.183 (f), will be held by the School Board at the date, hour, and place given in this Notice or as soon after the commencement of the meeting covered by this Notice as the School Board may conveniently meet in such closed or executive meeting or session concerning any and all purposes permitted by the Act. Before any closed meeting is convened, the presiding officer will publicly identify the section or sections of the Act authorizing the closed meeting. All final votes, actions, or decisions will be taken in open meeting.

**Subject of Meeting**

- 1. Call to Order**
- 2. Meeting to be Closed under Sections 551.071 and 551.074 of the Texas Government Code as follows:**
  - A. Grievance Appeal - Eduardo Lopez, Auto Shop Technician, Transportation; Pursuant to Texas Government Code Section 551.074
  - B. Consultation with Legal Counsel Concerning Legal Issues Relating To:
    1. Interlocal Agreement for the Purpose of Participation and Intervention in Public Utility Commission of Texas (PUC) Proceeding PUC Docket No. 52195, SOAH Docket No. 473-21-2606, Application of El Paso Electric Company to Change Rates; Pursuant to Texas Government Code Section 551.071
    2. Legal Options and Possible Litigation Regarding Executive Order by the Governor of the State of Texas GA-38 Relating to the Continued Response to the COVID-19 Disaster Issued on July 29, 2021; Pursuant to Texas Government Code Section 551.071
    3. Executive Search Services Agreement between El Paso Independent School District and Texas Association of School Boards, Inc.; Pursuant to Texas Government Code Section 551.071
  - C. Board/Chief Internal Auditor Conference to Include Performance Evaluation and Evaluation Instrument; Pursuant to Texas Government Code Sections 551.071 and 551.074
- 3. Discuss and Take Appropriate Action on Grievance Appeal - Eduardo Lopez, Auto Shop Technician, Transportation**  
*(To allow the Board to take action if needed)*
- 4. Discuss and Take Appropriate Action Related to Entering into an Interlocal Agreement for the Purpose of Participation and Intervention in Public Utility Commission of Texas (PUC) Proceeding, PUC Docket No. 52195, SOAH Docket No. 473-21-2606, Application of El Paso Electric Company to Change Rates**  
*(To allow the Board to take action if needed)*
- 5. Discuss and Take Appropriate Action on Legal Options and Possible Litigation Regarding Executive Order by the Governor of the State of Texas GA-38 Relating to the Continued Response to the COVID-19 Disaster Issued on July 29, 2021**  
*(To allow the Board to take action if needed)*
- 6. Discuss and Take Appropriate Action Regarding Executive Search Services Agreement between El Paso Independent School District and Texas Association of School Boards, Inc.**  
*(To allow the Board to take action if needed)*

7. **Discuss and Take Appropriate Action on Board/Chief Internal Auditor Conference to Include Performance Evaluation and Evaluation Instrument**

*(To allow the Board to take action if needed)*

8. **Adjournment**

*If not adjourned beforehand, the meeting will recess at 11:00 p.m. or within a reasonable time frame thereafter. If there is any unfinished business, the meeting will be reconvened at 5:00 p.m. on Tuesday of the following week to take up any such unfinished business.*

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**Interim Superintendent**

*The District condemns and prohibits discrimination, including harassment, against any employee on the basis of race, color, age, sex, religion, national origin, marital status, citizenship, military status, disability, genetic information, gender stereotyping and perceived sexuality, perceived or actual sexual orientation, gender identity or gender expression, or any other basis prohibited by law. Inquiries concerning the application of Title VI, VII, and IX, and Section 504 may be referred to the District Compliance Officer, Rosa Ramos, at (915) 230-2031; 504 inquiries regarding students may be referred to Kelly Ball at (915) 230-2856.*



## **Board of Trustees**

### **Executive Summary of Board Agenda Item**

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#### **TITLE:**

*Discuss and Take Appropriate Action on Grievance Appeal - Eduardo Lopez, Auto Shop Technician, Transportation*

#### **JUSTIFICATION STATEMENT:**

(To allow the Board to take action if needed)

#### **PURPOSE OF AGENDA ITEM:** Action

#### **TO BE HELD IN:** Open Session

#### **TEXAS GOVERNMENT CODES:**

#### **AUTHORITY FOR ACTION:** Legal/Local Policy

#### **STAFF RESPONSIBLE:** Rosa Ramos / Oscar Anchondo

#### **DISTRICT IMPROVEMENT PLAN OBJECTIVE, GOAL OR NEED ADDRESSED:**

#### **SUMMARY:**

#### **ADMINISTRATIVE RECOMMENDATION/MOTION:**

#### **FUNDING SOURCE: ACCOUNT NO.:**

#### **FISCAL IMPACT AND COST:**

- IMMEDIATE:
- FUTURE/ONGOING:

#### **IMPACT ON OTHER FUNCTIONS/OPERATIONS:**

#### **CONSEQUENCES OF NON-APPROVAL:**

#### **IMPLEMENTATION TIMELINE:**

#### **COMMENTS RECEIVED, IF ANY:**



## **Board of Trustees**

### **Executive Summary of Board Agenda Item**

---

#### **TITLE:**

*Discuss and Take Appropriate Action Related to Entering into an Interlocal Agreement for the Purpose of Participation and Intervention in Public Utility Commission of Texas (PUC) Proceeding, PUC Docket No. 52195, SOAH Docket No. 473-21-2606, Application of El Paso Electric Company to Change Rates*

#### **JUSTIFICATION STATEMENT:**

(To allow the Board to take action if needed)

**PURPOSE OF AGENDA ITEM:** Action

**TO BE HELD IN:** Open Session

**TEXAS GOVERNMENT CODES:**

**AUTHORITY FOR ACTION:** Legal/Local Policy

**STAFF RESPONSIBLE:** Cezy Collins, General Counsel

**DISTRICT IMPROVEMENT PLAN OBJECTIVE, GOAL OR NEED ADDRESSED:**

#### **SUMMARY:**

Legal counsel will provide information regarding the above-stated matter.

#### **ADMINISTRATIVE RECOMMENDATION/MOTION:**

Legal counsel will recommend action as needed.

**FUNDING SOURCE: ACCOUNT NO.:**

#### **FISCAL IMPACT AND COST:**

- IMMEDIATE:
- FUTURE/ONGOING:

**IMPACT ON OTHER FUNCTIONS/OPERATIONS:**

**CONSEQUENCES OF NON-APPROVAL:**

**IMPLEMENTATION TIMELINE:**

**COMMENTS RECEIVED, IF ANY:**



## **Board of Trustees**

### **Executive Summary of Board Agenda Item**

---

#### **TITLE:**

*Discuss and Take Appropriate Action on Legal Options and Possible Litigation Regarding Executive Order by the Governor of the State of Texas GA-38 Relating to the Continued Response to the COVID-19 Disaster Issued on July 29, 2021*

#### **JUSTIFICATION STATEMENT:**

(To allow the Board to take action if needed)

#### **PURPOSE OF AGENDA ITEM:** Action

#### **TO BE HELD IN:** Open Session

#### **TEXAS GOVERNMENT CODES:**

#### **AUTHORITY FOR ACTION:** Legal/Local Policy

#### **STAFF RESPONSIBLE:** Cezy Collins, General Counsel

#### **DISTRICT IMPROVEMENT PLAN OBJECTIVE, GOAL OR NEED ADDRESSED:**

#### **SUMMARY:**

Legal counsel will provide information regarding the above-stated matter.

#### **ADMINISTRATIVE RECOMMENDATION/MOTION:**

Legal counsel will recommend any action needed by the Board.

#### **FUNDING SOURCE: ACCOUNT NO.:**

#### **FISCAL IMPACT AND COST:**

- IMMEDIATE:
- FUTURE/ONGOING:

#### **IMPACT ON OTHER FUNCTIONS/OPERATIONS:**

#### **CONSEQUENCES OF NON-APPROVAL:**

#### **IMPLEMENTATION TIMELINE:**

#### **COMMENTS RECEIVED, IF ANY:**





## Board of Trustees

### Executive Summary of Board Agenda Item

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#### **TITLE:**

*Discuss and Take Appropriate Action Regarding Executive Search Services Agreement between El Paso Independent School District and Texas Association of School Boards, Inc.*

#### **JUSTIFICATION STATEMENT:**

(To allow the Board to take action if needed)

**PURPOSE OF AGENDA ITEM:** Action

**TO BE HELD IN:** Open Session

**TEXAS GOVERNMENT CODES:**

**AUTHORITY FOR ACTION:** Legal/Local Policy

**STAFF RESPONSIBLE:** Cezy Collins, General Counsel

**DISTRICT IMPROVEMENT PLAN OBJECTIVE, GOAL OR NEED ADDRESSED:**

#### **SUMMARY:**

Legal counsel will provide information regarding the above-stated matter.

#### **ADMINISTRATIVE RECOMMENDATION/MOTION:**

Legal counsel will recommend any action needed by the Board.

**FUNDING SOURCE: ACCOUNT NO.:**

#### **FISCAL IMPACT AND COST:**

- IMMEDIATE:
- FUTURE/ONGOING:

**IMPACT ON OTHER FUNCTIONS/OPERATIONS:**

**CONSEQUENCES OF NON-APPROVAL:**

**IMPLEMENTATION TIMELINE:**

**COMMENTS RECEIVED, IF ANY:**



## **Board of Trustees**

### **Executive Summary of Board Agenda Item**

---

#### **TITLE:**

*Discuss and Take Appropriate Action on Board/Chief Internal Auditor Conference to Include Performance Evaluation and Evaluation Instrument*

#### **JUSTIFICATION STATEMENT:**

(To allow the Board to take action if needed)

#### **PURPOSE OF AGENDA ITEM:** Action

#### **TO BE HELD IN:** Open Session

#### **TEXAS GOVERNMENT CODES:**

#### **AUTHORITY FOR ACTION:** Other

#### **STAFF RESPONSIBLE:** Members of the Board of Trustees

#### **DISTRICT IMPROVEMENT PLAN OBJECTIVE, GOAL OR NEED ADDRESSED:**

#### **SUMMARY:**

#### **ADMINISTRATIVE RECOMMENDATION/MOTION:**

#### **FUNDING SOURCE: ACCOUNT NO.:**

#### **FISCAL IMPACT AND COST:**

- IMMEDIATE:
- FUTURE/ONGOING:

#### **IMPACT ON OTHER FUNCTIONS/OPERATIONS:**

#### **CONSEQUENCES OF NON-APPROVAL:**

#### **IMPLEMENTATION TIMELINE:**

#### **COMMENTS RECEIVED, IF ANY:**

**DECLARATION**

(TEX. CIV. PRAC. &amp; REM. CODE § 132.001)

My name is Andrea Hartley; my birthdate is May 4, 1992 ; and my address is 4021 Volcanic Avenue, El Paso, TX 79904.

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Park Elementary, in the El Paso ISD,  
my children's names are R.G.H., nine years old and R.R.H. six years old.
2. I have experience with the way that my school's mask policy was enforced in the  
past, including: ignoring the Texas State Governor, Greg Abbott's Executive Order No.  
GA-38, which banned mask mandates.
3. The above-described policy or action is damaging to me and my child because: my  
children have complained of trouble breathing with a mask over their mouth and nose in  
class. This negative impact on their well-being is taking away from their educational and  
learning experiences. Furthermore, this is causing stress for me as a parent.
4. My child's school is requiring face coverings of students although there is no  
specification for the face covering. There are other parents who prefer a choice for their  
children but are not informed because the school districts are withholding information  
regarding choice and constitutional rights.

Executed in El Paso County, State of Texas on August 26, 2021

signed: \_\_\_\_\_

printed name: \_\_\_\_\_

Andrea Hartley

**DECLARATION**

(TEX. CIV. PRAC. & REM. CODE § 132.001)

My name is Joseph Madrid; my birthdate is January 4, 1991 ; and my address is 2617 Tierra Murcia, El Paso, Texas, 79938.

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Sgt. Jose Carrasco, SISD, 4 years old, Pre-K4, D.R.M.
2. I have experience with the way that my school's mask policy was enforced in the past, including: SISD website there is a pop up that states the SISD Board of Trustees votes to comply with the City of El Paso Health Authority Order mandating masks in indoor settings, masks required signs on all windows and door. Teachers and staff reminding kids to wear their masks.
3. The above-described policy or action is damaging to me and my child because: My daughters skin becomes irritated and dry where the mask is sitting, it is challenging for her to breath and pay attention in class. It is also challenging for her to pick up on certain verbal and non verbal cues since the mask is blocking the instructors face and those that are around here.
4. My child's school is requiring face coverings of students although there is no specification for the face covering.

Executed in El Paso County, State of Texas on September 7, 2021.

signed: Joseph Madrid

printed name: Joseph Madrid

**DECLARATION**  
(TEX. CIV. PRAC. & REM. CODE § 132.001)

My name is ALOFAGIA ONEY; my birthdate is July 28, 1982 ; and my address is 13056 CASTLE COURT, FORT BLISS, TX 79908.

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: El Paso Independent School District – Burges High School for my child F.O. (15 years old), Ross Middle School for my child B.O. (11 years old), and Milam Elementary for my child B.O.2 (5 years old).
2. I have experience with the way that my school's mask policy was enforced in the past, including: refusing to allow my child B.O.2 to attend kindergarten class and denying a written referral indicating B.O.2's violation; refusing my child F.O. to receive education by issuing In-School Suspension Aug. 23-25 and Aug. 27; refusing my child B.O. to receive education by issuing In-School Suspension Aug. 24-25 and Aug. 27.; threatening to place F.O. and B.O. in alternative school should the ISS continue for refusing to wear a mask.
3. The above-described policy or action is damaging to me and my child because: my children each have medical reasons as to why they cannot wear masks. F.O. and B.O. have both complained of massive migraines anytime they wear masks, as evident by their mask wearing in their private school last year. After a conversation with their teachers about it, their teachers were fine with F.O., B.O. and B.O.2 not wearing masks, and didn't strictly enforce it on the other students either. Upon learning of EPISD's decision to not



require masks and offer in-person learning five days a week, I made the decision to enroll all three of my children in public school (see Attachment 1-ONEY for email to current EPISD board president, Al Velarde, indicating his position on masks). After two weeks of in-person learning and loving their new schools and making friends, EPISD decided to implement this mask requirement in open defiance of the Texas governor's executive order, GA-38. Because F.O. and B.O. have decided not to wear masks, they have received derogatory marks in their student discipline report, namely in-school suspension. F.O.'s referral for in-school suspension lists Code 71-Dress Code/Unif – Violation of student code of conduct for reasons not defined in TEC Chapter 37. (see Attachment 2-ONEY for F.O.'s referrals). F.O. has been denied class instruction for executing a right secured by GA-38. Additionally, as while F.O. and one other student attended ISS for not complying with the mask mandate, countless other students wore clothing that actually does violate the Burges High School dress code (which hasn't been updated since 2018) and did not receive disciplinary action. This was pointed out by my husband, Faatafuna Oney to the referring vice principal, Mr. Rodolfo Diaz. I have also made this discrimination abundantly clear to the acting principal, Ms. Kathryn McMillan, and received no response or justification. F.O. has missed a full week of classroom instruction, in addition to the opportunity to practice with the Burges golf team, of which F.O. is a member. B.O. has been denied the right to an education and placed in ISS for three days during the week of Aug. 23. (See Attachment 3-ONEY for B.O.'s referrals). B.O.'s first referral violation was also dress code, which again, states nothing about masks. B.O.'s

second and third violations were written up as Code 67 – Insubordination. (See Attachment 3-ONEY for referrals) On Aug. 25, I had a meeting with the principal, Mr. Yturalde, and assistant principal, Ms. Salguero, who threatened alternative school for B.O. should B.O. continue to defy the mask policy. B.O. and two other students at Ross Middle School were the only ones in ISS for refusing to comply with the mask mandate. B.O. has also not been allowed to participate with the Ross volleyball team due to the ISS disciplinary action. B.O. is an excellent student and B.O.'s grades for participation have dropped. B.O.2 was denied the right to public school education because the principal, Mrs. Wanda Johnson, refused to allow B.O.2 into class without a mask. On Monday, Aug. 23, she made a concession that if B.O.2 could sit behind a partition, B.O.2 could remain in class without a mask. I agreed to that, only to learn B.O.2 was seated at the front of the room by the teacher away from peers, and was not able to interact with peers, participate in class activities away from the desk, and B.O.2 cried incessantly saying, "Mommy I hate the rectangle table. It makes me turn the color green because I am frustrated." After informing Ms. Johnson that I no longer consent to my child being segregated from peers by a partition, and that B.O.2 would not wear a mask, Ms. Johnson said B.O.2 would not be allowed in class. Additionally, because B.O.2 was not in class, Ms. Johnson could not issue the referral for discipline. I received nothing in writing indicating B.O.2's alleged infractions, and Ms. Johnson made it clear that she did not care about B.O.2 missing class. As B.O.2 was present Aug. 23-25 but not permitted to go to class, Ms. Johnson said B.O.2 would have unexcused absences. I have kept B.O.2 home from school from Aug. 25-27



and withdrew B.O.2 from EPISD effective Aug. 27. B.O.2 also has a speech delay which is helped with the assistance of verbal cues – meaning, B.O.2 looks at mouths when talking and listening. When B.O.2 cannot hear what is being said from behind a mask, or interpret body language or tone inflections, B.O.2 gets frustrated and does not communicate needs. As a five year old, B.O.2 is at the time of childhood where learning how to effectively communicate is important. Milam Elementary and Ms. Johnson have essentially denied B.O.2's ability to do so in an educational setting.

4. **My child's school is requiring face coverings of students although there is no specification for the face covering.** I have sent numerous emails to the EPISD board, superintendent, principals and teachers regarding this issue, with response only coming from Ms. McMillan, the Burges principal, indicated she is acting in accordance with the EPISD guidance on mask enforcement. On Aug. 27, I withdrew B.O.2 from Milam Elementary and re-enrolled in the private school B.O.2 attended last year because I have lost confidence in the principal, as well as the teacher. I do not trust they would keep B.O.2's best interest in mind in the event the EPISD mandate is overturned. Instead of walking to school given the distance from Milam to my house, I must now transport B.O.2 to and from private school since it does not offer transportation to or from inside the military installation. I must now resume paying for B.O.2's education when my child should receive it for free from the State of Texas public schools. In addition to my children's academic, emotional, psychological, mental and physical health, I, myself, have experienced both mental and financial trauma. In order to make phone calls, write

emails and transport F.O. and B.O. to school because they were not allowed on the bus, I had to take a leave of absence from work, resulting in the loss of thousands of dollars. I have been mentally and emotionally traumatized trying to fight my children's rights, rights already upheld as lawful by the Texas Supreme Court.

Executed in EL PASO County, State of Texas on ENTER DATE, 2021.

signed:  \_\_\_\_\_

printed name: ONEY, ALOFAGIA

**DECLARATION**

(TEX. CIV. PRAC. &amp; REM. CODE § 132.001)

My name is Denise Prieve my birthdate is September 17, 1972 ; and my address is 5199 Hunters Glenn El Paso TX 79932

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Don Haskins Pre-K-8 Public School
2. I have experience with the way that my school's mask policy was enforced in the past, including: sending my children to the principal's office, after I provided a letter opting out of the face mask mandate. The Principal, Mrs. Haidi Appel, stated that all I needed to do was provide a "note from any US doctor exempting the children from wearing a mask". I then received a phone call from the Assistant Principal that if I sent a doctor's note, the school would then start a 504 investigation to provide my child with a plan to go forward. Subsequently, my children were stressed out, nervous, and scared to go to school to be singled out for doing what I had told them to do. They begged me to take them out to homeschool them. I pulled them from the EPISD on August 23, 2021 due to this mask mandate. I homeschooled my children last year, as the virtual option did not work with my family's schedule. I would have never put them back into the EPISD had I been made aware that masks were going to be mandated once again.
3. The above-described policy or action is damaging to me and my child because: They are being denied their Constitutionally protected public education due to nothing on our part. This mask mandate has been banned via GA-38 and will be taken up on October



7th, 2021 by TX AG Paxton. My kids were very scared, nervous and stressed about possibly getting in trouble at school for not wearing a mask. I tried to explain to them that the district was in the wrong (and Mrs. Haidi Appel on the phone let me know that she assured my daughter that, "she [my 6th grade daughter] did nothing wrong. This is bigger than all of us and we [my children/family] are doing the right thing". I'm aware that the schools are being put in an untenable position with pressure from the union, school board and school district authorities.

4. My child's school is requiring face coverings of students although there is no specification for the face covering. This was not stated in any documentation that I signed when I completed online registration in May, 2021. Had I known that my children would have been subjected to this, there is no chance I would have put them back into public school.

Executed in El Paso County, State of Texas on September 16, 2021.

signed: \_\_\_\_\_

printed name: \_\_\_\_\_

Denise Prieve

**DECLARATION**

(TEX. CIV. PRAC. &amp; REM. CODE § 132.001)

My name is Michelle Rechten; my birthdate is July 25, 1972; and my address is 5724 Valley Maple Dr.

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Franklin High School, El Paso Independent School District, 17 year old male.
2. I have experience with the way that my school's mask policy has been enforced, including: The school board enforced a mask policy in which every attendee of the school whether teacher, student, or visitor, must cover their nose and mouth with a cloth or paper mask or face covering.
3. The above-described policy or action is damaging to me and my child because: They interrupted his education in order to force upon him a mask. When he refused and called me, his mother, they placed him into a locked isolation room, threatening in school suspension if he were to leave, for approximately 15 minutes. After he was let out of the room for the second meeting, they were unable to produce a document or physical justification that allowed them to lock him in a room alone during school hours, instead claiming that the district and dress code allowed them to do so. When followed up with questions about the location of the mask mandate in the dress code, the administrators were once again unable to provide the policy that allowed them to mandate masks in school, instead claiming that GA-38 was overturned by the courts and thus, masks could

be mandated by the school board. During the second recorded meeting, disciplinary measures such as in school suspension, out of school detention and alternative education programs were mentioned, as well as behavioral referrals and insubordination by the school for failure to comply. He was withdrawn from school shortly thereafter seeking early college admission, on account of the intimidation tactics, fear mongering, abuse, and bullying that suddenly became common place in policy enforcement.

By signing this declaration, I am giving permission for it to be used in litigation concerning masks in any Texas case.

Executed in Tarrant County, State of Texas on 30 Aug, 2021.

signed: \_\_\_\_\_

printed name: Michelle Rechten

**DECLARATION**

(TEX. CIV. PRAC. & REM. CODE § 132.001)

My name is Jessica Lizette Rodriguez; my birth date is November 19, 1988; and my address is 4835 Sierra Madre Drive, El Paso, TX 79904.

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Sunrise Mountain Elementary in El Paso Independent School District. E. R. B. and E. B. B.
2. I have experience with the way that my school's mask policy was enforced in the past, including: Referral write ups without reasonable misconduct according to the Student Code of Conduct, in school suspension causing isolation from peers and teachers without reasonable misconduct according to the Student Code of Conduct and threats of suspension and expulsion for both 2<sup>nd</sup> grade child and 4<sup>th</sup> grade child from Principal Terry Montes and Assistant Principal Guillermo Ramirez of Sunrise Mountain Elementary, EPISD.
3. The above-described policy or action is damaging to me and my children because: I am being stripped away of my rights as a parent to make medical and health decisions for my children and my children are being stripped away of their birth right to breathe fresh air and of their constitutional rights for free education. We have been and are still being harassed with punishments for my children, threatened to get suspended or expelled and stressed every day because my kids just want to go to school without worrying about getting kicked out because they wish to breathe properly, comfortably and healthy. My children are very bright and respectful and the proof is in the



statements from the assistant principal on the referral write ups. My son has told me that he is worried every day that they will take him out of class, isolate him and put him in ISS (in school suspension). My daughter worries daily that she will not be allowed back in school on the following day. My children are not and have never been disruptive in class, have never misbehaved or have ever been disrespectful to anyone in any way, shape or form and for them to be harassed and punished is unjust! I provided the school with documents which specifically state not to offer my children facial coverings but every day they attend school, the administrators offer a mask twice a day and my kids kindly decline. These intimidation tactics cause my kids anxiety and fear every day that they will be isolated or removed from class and school.

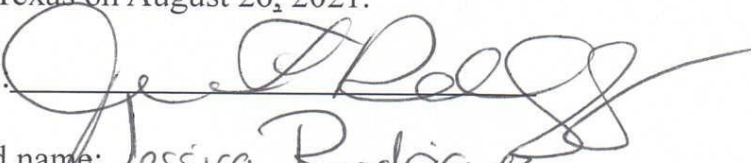
4. My child's school is requiring face coverings of students although there is no specification for the face covering. Today, August 26<sup>th</sup>, 2021, as I was picking up my children from school @ 3:25, I met with the assistant principal Guillermo Ramirez just outside in the pick up area to be handed the written up referrals for my children again, not because they misbehaved in class or because they were disrespectful or because they were being disruptive, rude or worse, but because they did not have a face mask on. After Mr. Ramirez handed me the papers, I continued to walk to pick up my kids in the pick up area only to hear Mr. Ramirez, the assistant principal, say "You wont even have them wear the mask like this?", as he removed his mask and placed it right under his chin. My understanding of the assistant principals comments is that they are more concerned about compliance rather than health and safety.



Executed in El Paso County, State of Texas on August 26, 2021.

signed:

printed name:

  
Jessica Rodriguez

**DECLARATION**

(TEX. CIV. PRAC. &amp; REM. CODE § 132.001)

My name is William C. Roll Jr; my birthdate is July 13, 1963 ; and my address is 5730 Kingsfield Ave, El Paso, TX 79912

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Hornedo Middle School in El Paso Independent School District. My son is a 13 year old in the 8th grade.
2. I have experience with the way that my school's mask policy was enforced in the past, including: making my son wear a mask through a newly imposed dress code that is being used to try to circumvent the Texas Governors no mask mandate.
3. The above-described policy or action is damaging to me and my child because: he has been diagnosed at a young age with Sensory Processing Disorder (SPD) and by wearing his mask it has not allowed him to completely focus on his schoolwork. His school performance has been significantly lower than his historical average since wearing a mask. He also complains of trouble breathing and skin irritations. He has been written up and sent to detention for not wearing his masks properly despite telling his teachers and administration of his challenges.
4. My child's school is requiring face coverings of students although there is no specification for the face covering. The OSHA scientific data clearly demonstrates that masks not of N-95 variety proved little to no value in hindering a virus and reduce oxygen levels up to 20%. The regulations for the medical clearance and fit for the N-95 masks

can be reviewed at [www.osha.gov](http://www.osha.gov) under 29 CFR 1910.134. The dress code which is being enforced is non-descript in the type of masks that must be worn which further proves that this mandate is not about the childrens health. It fails to take into account the mental well-being and personal communications skills that are so vitally important to a person's success that are being developed during these critical years.

Executed in El Paso County, State of Texas on September 1, 2021.

signed: \_\_\_\_\_

printed name: \_\_\_\_\_

**Declaration of Melanie F. Webb, PsyD**

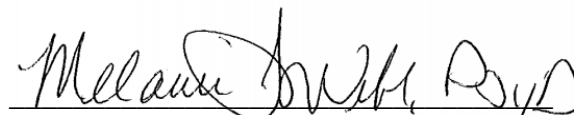
My name is Melanie F. Webb, PsyD. My date of birth is June 14, 1969. My business address is 985 IH 10, North, Ste. 110G, Beaumont, TX 77706. I declare under penalty of perjury that the following statements are true and correct:

1. My name is Melanie F. Webb, PsyD. I am a clinical psychologist specializing in forensic practice and licensed to practice by the Texas State Board of Examiners of Psychologists. I am a multigenerational native Texan, born and raised in the Beaumont area and graduated from Lumberton High School in 1987. I have been practicing since 2004, when I received my Doctor of Psychology from the Colorado School of Professional Psychology.
2. I am currently in private practice in Beaumont. Prior to opening my practice, I served for four years as a staff psychologist for the Texas Department of Public Safety in Austin. I also served as Psychological Services Manager for Tarrant County Juvenile Probation Department Chief Psychologist of the Adult Psychiatric Unit of the Austin State Hospital, and the Clinical Director of the Corsicana Stabilization of the Texas Youth Commission. I have performed more than a thousand forensic evaluations and assisted in hundreds of juvenile procedures as well as worked with many children and adolescents in therapy.
3. I am writing this declaration to share my professional opinions regarding the use of face coverings in schools by school-age children and their negative impact on children.
4. At the beginning of the COVID-19 era, the short-term use of masks to “flatten the curve” and “take the pressure off frontline healthcare workers” did not pose a significant risk or damage. However, in the last year, the protracted use of masks has been disastrous for the mental health of children.
5. The proper socialization of children in school settings requires open communication between teachers and students. Use of face coverings has an isolating effect between humans who communicate non-verbally with their facial expressions, which acts to confirm the attitude and tone given by oral communications and other physical signals. For example, a teacher who is smiling at a student from many yards away gives a sense of welcome and security to a shy child who may be struggling to fit in. That smile and other signals that human communication employs routinely is eliminated in a mask setting. The natural impact of face coverings is to therefore raise uncertainty

between students and teachers, as well as eliminating the natural lip-reading that all humans do when confirming what they are hearing.

6. In addition to the risks for decreased socialization of children, masks are likely to either cause emotional distress resulting in anxiety and/or depression or they will exacerbate symptoms of a pre-existing mental health condition. This occurs, in part, due to the negative impact on the socialization aspect of school, but simply feeling as though one's breathing is restricted, in and of itself, can trigger anxiety attacks as well as post-traumatic stress response in any child who has experience certain types of trauma.
7. The impact of face coverings in school-age children over the COVID era has been a factor in the increased negative indicators for children. Childhood suicide and depression has skyrocketed in the last two years, as well as anxiety and stunted social and language development.

Executed in Jefferson County, State of Texas on September 20, 2021.

  
Melanie F. Webb, PsyD

## Declaration of Dr. Angelina Farella

My name is Dr. Angelina Farella. My date of birth is August 5th, 1969. My business address is 425 Henrietta St, Webster, TX 77598, in Harris County, Texas.

I declare under penalty of perjury that the following statements are true and correct:

1. I am a board-certified pediatrician and have been practicing in this area for more than 25 years. I am a member of multiple professional medical associations, including the Harris County Medical Society, American Academy of Physicians and Surgeons, and Texas Medical Association.
2. I operate my practice in Webster, Texas, known as "A Brighter Tomorrow Pediatrics" and have been honored as a Leader in Healthcare, receiving a "Doctor of Excellence Award in 2014, represented the Texas Medical Association as a delegate since 2015, and have previously served as the Chief Pediatric Resident at University of Texas Medical Branch, Galveston, TX.
3. I have treated hundreds of COVID-19 patients. My experience reflects the collected statistics that children have a 99.997% survivability rate. That is before any active treatment. There exists no accurate study that indicates children materially spreads the virus.
4. In my practice, I have become experienced and knowledgeable about strategies to prevent COVID-19, including face coverings by children, and spoken publicly on this issue multiple times, including testimony to the Texas Senate.
5. Mask usage is not necessary for children. It is well-known that Sweden has more than a million school-age minors, but the school system employed mild social distancing and no masks, and had zero deaths from COVID-19. A good synopsis regarding this experience was printed in the New England Journal of Medicine on January 6, 2021, titled "Open Schools, Covid-19 and Child and Teacher Morbidity in Sweden," which includes this summary:  
  

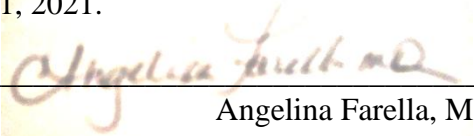
“Despite Sweden’s having kept schools and preschools open, researchers have found a low incidence of severe Covid-19 among schoolchildren and children of preschool age during the SARS-CoV-2 pandemic...No child with Covid-19 died...Among the 1,951,905 million children who were 1 to 16 years of age, 15 children had Covid-19, MIS-C, or both conditions and were admitted to an ICU, which is equal to 1 child in 130,000.”<sup>1</sup>
6. I am aware that medically fragile children exist and are particularly vulnerable to COVID-19. However, these children are just as likely to be damaged by the common flu, which for minors is more lethal.

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<sup>1</sup> Open Schools, Covid-19, and Child and Teacher Morbidity in Sweden, N Engl J Med 2021; 384:669-671  
 DOI: 10.1056/NEJMc2026670, <https://www.nejm.org/doi/full/10.1056/NEJMc2026670> (checked Aug. 25, 2021).

7. Continuous and ongoing mask use with children is damaging to the health of children, increasing the carbon dioxide intake far beyond the usual 400 ppm one might experience unmasked in the open; one study collected results showing the incoming air inhaled by masked children to be 6000 ppm to 25000 ppm carbon dioxide.<sup>2</sup>
8. Mask use by children has resulted in many increased physical issues, including fatigue and impaired learning, but also sociological damage. The impact of isolation due to masking is part of the increased mental health issues including anxiety, eating disorders, depression and suicide in children during the COVID-19 era.

Executed in Harris County, State of Texas on September 21, 2021.

  
\_\_\_\_\_  
Angelina Farella, MD

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<sup>2</sup> Walach H, Weikl R, Prentice J, et al. Experimental Assessment of Carbon Dioxide Content in Inhaled Air With or Without Face Masks in Healthy Children: A Randomized Clinical Trial. *JAMA Pediatr*. Published online June 30, 2021. doi:10.1001/jamapediatrics.2021.2659 (last checked August 12, 2021).

**Declaration of Peter McCullough, M.D., M.P.H.**

My name is Peter McCullough. My date of birth is December 29, 1962. My business address is 5231 Richard, Dallas, TX 75206, in Dallas County, Texas. I declare under penalty of perjury that the following statements are true and correct:

1. After receiving a bachelor's degree from Baylor University, I completed my medical degree as an Alpha Omega Alpha graduate from the University of Texas Southwestern Medical School in Dallas. I went on to complete my internal medicine residency at the University of Washington in Seattle, a cardiology fellowship including service as Chief Fellow at William Beaumont Hospital, and a master's degree in public health in the field of epidemiology at the University of Michigan. My full curriculum vitae is attached as Exhibit A.
2. I am board-certified in internal medicine and cardiovascular disease and hold an additional certification in clinical lipidology, and previously echocardiography. I participate in the maintenance of certification programs by the American Board of Internal Medicine for both Internal Medicine and Cardiovascular Diseases. I am on the medical staff at Baylor University Medical Center and Baylor Jack and Jane Hamilton Heart and Vascular Hospital, in Dallas, Texas. I am also on staff at Baylor Heart and Vascular Institute, which promotes cardiovascular research and education. I practice internal medicine and clinical cardiology as well as teach, conduct research, and I am an active scholar in medicine with roles as an author, editor-in-chief of two peer-reviewed journals, editorialist, and reviewer at dozens of major medical journals and textbooks.
3. I have led clinical, education, research, and program operations at major academic centers (Henry Ford Hospital, Oakland University William Beaumont School of Medicine) as well as academically oriented community health systems. I spearheaded the clinical development of in vitro natriuretic peptide and neutrophil gelatinase associated lipocalin assays in diagnosis,



prognosis, and management of heart and kidney disease now used worldwide. I also led the first clinical study demonstrating the relationship between severity of acute kidney injury and mortality after myocardial infarction. I have contributed to the understanding of the epidemiology of chronic heart and kidney disease through many manuscripts from the Kidney Early Evaluation Program Annual Data Report published in the American Journal of Kidney Disease and participated in clinical trial design and execution in cardiorenal applications of acute kidney injury, hypertension, acute coronary syndromes, heart failure, and chronic cardiorenal syndromes. I participated in event adjudication (involved attribution of cause of death) in trials of acute coronary syndromes, chronic kidney disease, heart failure, and data safety and monitoring of antidiabetic agents, renal therapeutics, hematology products, and gastrointestinal treatments. I have served as the chairman or as a member of over 20 randomized trials of drugs, devices, and clinical strategies. Sponsors have included pharmaceutical manufacturers, biotechnology companies, and the National Institutes of Health.

4. I frequently lecture and advise on internal medicine, nephrology, and cardiology to leading institutions worldwide. I am recognized by my peers for my work on the role of chronic kidney disease as a cardiovascular risk state. I have over 1,000 related scientific publications, including the “Interface between Renal Disease and Cardiovascular Illness” in Braunwald’s Heart Disease Textbook. My works have appeared in the New England Journal of Medicine, Journal of the American Medical Association, and other top-tier journals worldwide. I am a senior associate editor of the American Journal of Cardiology. I have testified before the U.S. Senate Committee on Homeland Security and Governmental Affairs, the U.S. Food and Drug Administration Cardiorenal Advisory Panel and its U.S. Congressional Oversight Committee, The New

Hampshire Senate, the Colorado House of Commons, and the Texas Senate Committee on Health and Human Services.

5. I am a Fellow of the American College of Cardiology, the American Heart Association, the American College of Physicians, the American College of Chest Physicians, the National Lipid Association, the Cardiorenal Society of America, and the National Kidney Foundation. I am also a Diplomate of the American Board of Clinical Lipidology.

6. In 2013, I was honored with the International Vicenza Award for Critical Care Nephrology for my contribution and dedication to the emerging problem of cardiorenal syndromes. I am a founding member of Cardiorenal Society of America, an organization dedicated to bringing together cardiologists and nephrologists and engage in research, improved quality of care, and community outreach to patients with both heart and kidney disease.<sup>1</sup>

7. I am the current President of the Cardiorenal Society of America, an expert organization dedicated to advancing research and clinical care for patients who have combined heart and kidney disease. I am the Editor-in-Chief of Cardiorenal Medicine, a primary research journal listed by the National Library of Medicine which is the only publication with a primary focus on research concerning patients with combined heart and kidney disease. Finally, I am the Editor-in- Chief of Reviews in Cardiovascular Medicine, a widely read journal that publishes reviews on contemporary topics in cardiology and is also listed by the National Library of Medicine.

8. My appended curriculum vitae further demonstrates my academic and scientific achievements and provides a list of publications authored by me in the past 30 years.

9. Since the outset of the pandemic, I have been a leader in the medical response to the COVID-19 disaster and have published “Pathophysiological Basis and Rationale for Early

<sup>1</sup> <http://www.cardiorenalsociety.org/>

Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection,” the first synthesis of sequenced multidrug treatment of ambulatory patients infected with SARS-CoV-2 in the American Journal of Medicine and updated in Reviews in Cardiovascular Medicine.<sup>2</sup> I have 45 peer-reviewed publications on the COVID-19 infection cited in the National Library of Medicine. Through a window to public policymakers, I have contributed extensively on issues surrounding the COVID-19 crisis in a series of OPED’s for The Hill in 2020. I testified on the SARS-CoV-2 outbreak in the U.S. Senate Committee on Homeland Security and Governmental Affairs on November 19, 2020. I testified on lessons learned from the pandemic response in the Texas Senate Committee on Health and Human Services on March 10, 2021, and on early treatment of COVID-19 at the Colorado General Assembly on March 31, 2021. Additionally, I testified in the New Hampshire Senate on legislation concerning the investigational COVID-19 vaccine on April 14, 2020. My expertise on the SARS-CoV-2 infection and COVID-19 syndrome, like that of infectious disease specialists, is approximately 18 months old with the review of hundreds of manuscripts and with the care of many patients with acute COVID-19, post-COVID-19 long-hauler syndromes, and COVID-19 vaccine injury syndromes including neurologic damage, myocarditis, and a variety of other internal medicine problems that have occurred after the mRNA and adenoviral DNA

<sup>2</sup> McCullough PA, Kelly RJ, Ruocco G, Lerma E, Tumlin J, Wheelan KR, Katz N, Lepor NE, Vijay K, Carter H, Singh, B, McCullough SP, Bhambi BK, Palazzuoli A, De Ferrari GM, Milligan GP, Safder T, Tecson KM, Wang DD, McKinnon JE, O'Neill WW, Zervos M, Risch HA. Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection. Am J Med. 2021 Jan;134(1):16-22. doi: 10.1016/j.amjmed.2020.07.003. Epub 2020 Aug 7. PMID: 32771461; PMCID: PMC7410805 available at <https://pubmed.ncbi.nlm.nih.gov/32771461/>; McCullough PA, Alexander PE, Armstrong R, Arvinte C, Bain AF, Bartlett RP, Berkowitz RL, Berry AC, Borody TJ, Brewer JH, Brufsky AM, Clarke T, Derwand R, Eck A, Eck J, Eisner RA, Fareed GC, Farella A, Fonseca SNS, Geyer CE Jr, Gonnering RS, Graves KE, Gross KBV, Hazan S, Held KS, Hight HT, Immanuel S, Jacobs MM, Ladapo JA, Lee LH, Littell J, Lozano I, Mangat HS, Marble B, McKinnon JE, Merritt LD, Orient JM, Oskoui R, Pompan DC, Procter BC, Prodromos C, Rajter JC, Rajter JJ, Ram CVS, Rios SS, Risch HA, Robb MJA, Rutherford M, Scholz M, Singleton MM, Tumlin JA, Tyson BM, Urso RG, Victory K, Vliet EL, Wax CM, Wolkoff AG, Wooll V, Zelenko V. Multifaceted highly targeted sequential multidrug treatment of early ambulatory high- risk SARS-CoV-2 infection (COVID-19). Rev Cardiovasc Med. 2020 Dec 30;21(4):517 doi: 10.31083/j.rcm.2020.04.264. PMID: 33387997 available at <https://pubmed.ncbi.nlm.nih.gov/33387997/> (checked August 25, 2021).

COVID-19 vaccines. I have formed my opinions in close communications with many clinicians around the world based on in part our collective clinical experience with acute and convalescent COVID-19 cases as well as closely following the preprint and published literature on the outbreak. I have specifically reviewed key published rare cases and reports concerning the possible recurrence of SARS-CoV-2 in patients who have survived an initial episode of COVID-19 illness.

10. My compensation rates are as follows: I am working on this case Pro Bono.

**As to my expert opinion:**

**Methodologies and Analysis of COVID-19 Generally**

11. We are currently in the “Delta” outbreak where the US CDC has indicated that 83% of all cases of COVID-19 by sequencing analysis is attributed to this form of SARS-CoV-2. (www.cdc.gov)

12. Further, according to my research, herd immunity is calculated by a specific formula, as follows:  $((CC*6) + V + (.15*P)) \div P = HIN$ .

CC= COVID-19 cases in the state

6= the current CDC multiplier<sup>3</sup>

V= number of vaccinated in the state

15% = the number of people in a given state that will not get COVID-19

P=Population of a state

HIN=Herd Immunity Totals

By this method of calculation, the United States has achieved herd immunity, meaning that the total of this calculation exceeds 100%. As vaccines continue to fail, we can expect cases of COVID-19 and the meaning of herd immunity applies to spread. Despite expected incidents and prevalent cases, my opinion is that this spread will be minimized and there will be no more large outbreak curves as the country experienced in November through early January before the advent

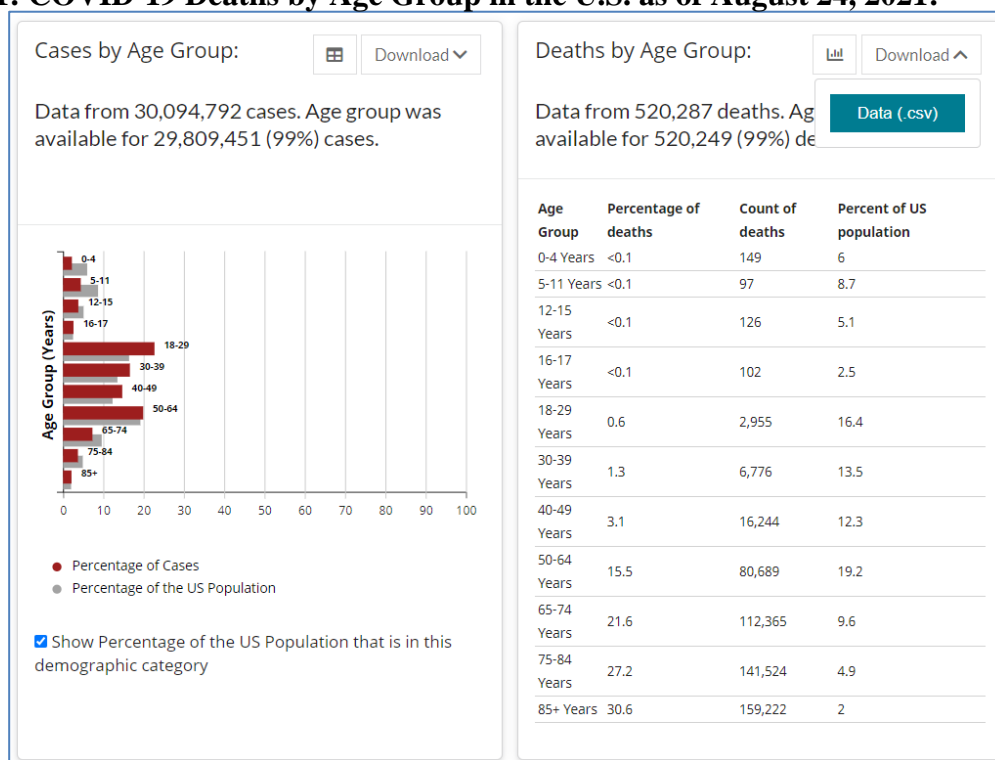
<sup>3</sup> Centers for Disease Control and Prevention, Estimated Disease Burden of COVID-19 (May 19, 2021), <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/burden.html>

of widely deployed early treatment protocols. Because the randomized trials of all COVID-19 vaccines revealed  $< 1\%$  absolute risk reductions, and the recent observation of widespread failure of COVID-19 vaccines in countries such as Israel which has a substantial population vaccinated early the pandemic, we can expect more vaccine failures in the United States and no fundamental impact of mass vaccination on the epidemic curves.

### Children and Adolescents and COVID-19

13. In addition, in my expert medical opinion and as Table 1 below shows, there is little to no risk for serious injury or hospitalization for COVID-19 among children and adolescents.

**Table 1: COVID-19 Deaths by Age Group in the U.S. as of August 24, 2021:**



Source: <https://covid.cdc.gov/covid-data-tracker/#demographics> (checked Aug. 25, 2021).

14. Further, the CDC has released charts depicting the risks by age, as shown below.

Risk for COVID-19 Infection, Hospitalization, and Death By Age Group									
Updated July 19, 2021 <a href="#">Print</a>									
Rate ratios compared to 18- to 29-year-olds <sup>1</sup>									
	0-4 years old	5-17 years old	18-29 years old	30-39 years old	40-49 years old	50-64 years old	65-74 years old	75-84 years old	85+ years old
<b>Cases<sup>2</sup></b>	<1x	1x	Reference group	1x	1x	1x	1x	1x	1x
<b>Hospitalization<sup>3</sup></b>	<1x	<1x	Reference group	2x	2x	4x	6x	9x	15x
<b>Death<sup>4</sup></b>	<1x	<1x	Reference group	4x	10x	35x	95x	230x	600x

All rates are relative to the 18- to 29-year-old age category. This group was selected as the reference group because it has accounted for the largest cumulative number of COVID-19 cases compared to other age groups. Sample interpretation: Compared with 18- to 29-year-olds, the rate of death is four times higher in 30- to 39-year-olds, and 600 times higher in those who are 85 years and older. (In the table, a rate of 1x indicates no difference compared to the 18- to 29-year-old age category.)

**Table 2: COVID-19 Rate Ratios by Age**

Source: <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html> (last checked August 25, 2021).

15. COVID-19 becomes gradually more fatal with age. As the table above shows, the risk to children is negligible for children and adolescents respective to adults. In comparison to minors, the virus is four times as fatal as those in their 30s, ten times to those in their 40s, etc. COVID-19 is 600 times more fatal to those 85 years of age or older. *See Table 2.*

16. 15. In my expert medical opinion, the epidemic spread of COVID-19, like all respiratory viruses, notably influenza,<sup>4</sup> is driven by symptomatic persons; asymptomatic spread is inconsequential.

<sup>4</sup> Eleni Patrozou & Leonard A. Mermel, *Does Influenza Transmission Occur from Asymptomatic Infection or Prior to Symptom Onset?*, 124 Pub. Health Rep. 193 (2009).

17. A meta-analysis of contact tracing studies in The Journal of the American Medical Association showed asymptomatic COVID-19 spread was negligible at 0.7%.<sup>5</sup>

18. Accordingly, a rational and ethical prevention measure to reduce the spread of COVID-19 is a simple requirement, as part of formal policies, that persons with active symptomatic, febrile (feverish) respiratory illnesses, like COVID-19, should isolate themselves. Indeed, during the H1N1 influenza, a pandemic, fully open, unmasked college campuses were advised by federal health officials, “*Flu-stricken college students should stay out of circulation*” and “*if they can’t avoid contact they need to wear surgical masks.*”<sup>6</sup>

19. Further, young people are not the spreaders of the virus to the community. A recent study from Dr. Arnold and colleagues that reported the results of a longitudinal serosurvey (blood sampling) of community residents in Centre County, Pennsylvania, home to Pennsylvania State University, University Park campus. That study includes the conclusion, “Despite high seroprevalence observed within the student population, seroprevalence in a longitudinal cohort of community residents was low and stable from before student arrival for the Fall 2020 term to after student departure, implying limited transmission between these cohorts.”<sup>7</sup>

20. Children and adolescents face little chance of actually catching COVID-19 or developing severe symptoms if it occurs and a negligible chance of spreading it to the greater community.

<sup>5</sup> Zachary J. Madewell, Ph.D.; Yang Yang, Ph.D.; Ira M. Longini Jr, Ph.D.; M. Elizabeth Halloran, MD, DSc; Natalie E. Dean, Ph.D., Household Transmission of SARS-CoV-2: A Systematic Review and Meta-analysis, JAMA Network Open. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774102> (checked June 20, 2021).

<sup>6</sup> Great Falls Tribune, *Advice: Flu-stricken college students should stay out of circulation*, August 21, 2009, page 5, section A. <https://www.newspapers.com/image/243611045> (checked August 25, 2021, behind pay wall).

<sup>7</sup> See Callum R K Arnold, Sreenidhi Srinivasan, Catherine M Herzog, Abhinay Gontu, Nita Bharti, Meg Small, Connie J Rogers, Margeaux M Schade, Suresh V Kuchipudi, Vivek Kapur, Andrew Read, Matthew J Ferrari, SARS-CoV-2 Seroprevalence in a University Community: A Longitudinal Study of the Impact of Student Return to Campus on Infection Risk Among Community Members, medRxiv (Feb. 19, 2021), available at <https://pubmed.ncbi.nlm.nih.gov/33619497/> (last visited June 20, 2021).

### Advances in COVID-19 Treatments

21. Even if young people contract the virus, the treatment of the infection has improved tremendously since the advent of COVID-19. Studies have shown several different treatment methods, which have proven effective. A combination of medications, supported by the Association of American Physicians and Surgeons, for a minimum of five days and acutely administered supplements used for the initial ambulatory patient with suspected and or confirmed COVID-19 (moderate or greater probability) has proven effective, with the results summarized in Table 3 below.<sup>8</sup> This approach has resulted in an ~85% reduction in hospitalization and death in high-risk individuals presenting with COVID-19.<sup>9</sup>

**Table 3: COVID-19 Treatments**

Agent (drug)	Rationale
Zinc	Inhibits SARS-CoV-2 RNA synthesis
Hydroxychloroquine 200 mg po bid	Inhibits endosomal transfer of virions, anti-inflammatory
Ivermectin (200 mcg/kg) usual dose nuclear12 mg po qd x 3 days nucleus	Attenuates importin $\alpha$ -mediated transport of SARS-CoV-2 into nucleus
Azithromycin 250 mg po bid	Covers respiratory bacterial pathogens in secondary infection
Doxycycline 100 mg po bid	Covers respiratory bacterial pathogens in secondary infection
Inhaled budesonide, Dexamethasone 8 mg IM	Treats cytokine storm
Folate, thiamine, vitamin B-12	Reduce tissue oxidative stress
Intravenous fluid	Intravascular volume expansion

<sup>8</sup> Brian C Procter, Casey Ross, Vanessa Pickard, Erica Smith, Cortney Hanson, Peter A McCullough, *Clinical outcomes after early ambulatory multidrug therapy for high-risk SARS-CoV-2 (COVID-19) infection*, Reviews in Cardiovascular Medicine (December 30, 2021), available at <https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.04.260> (last visited June 26, 2021).

<sup>9</sup> Procter, MD, B. C., APRN, FNP-C, C. R. M., PA-C, MPAS, V. P., PA-C, MPAS, E. S., PA-C, MPAS, C. H., & McCullough, MD, MPH, P. A. (2021). Early Ambulatory Multidrug Therapy Reduces Hospitalization and Death in High-Risk Patients with SARS-CoV-2 (COVID-19). *International Journal of Innovative Research in Medical Science*, 6(03), 219 - 221. <https://doi.org/10.23958/ijirms/vol06-i03/1100> (last visited August 25, 2021).



22. I, along with my colleagues, conducted the study referenced above, which evaluated patients between the ages of 12 and 89 years. The average age was 50.5 and 61.6% were women. The study found that primary care physicians can treat COVID-19 patients resulting in rates of hospitalization and death. The study showed that administration of the medicines and supplements shown in Table 3 produces a less than 2% chance of facing hospitalization or death among high-risk adults (age over 50 with medical problems). As this study was done with mainly higher-risk patients at the peak of the pandemic, this is a highly successful treatment plan and just one of the many new treatments that have been used in the last year including those admitted for COVID-19 which are covered in the NIH COVID-19 Guidelines.<sup>10</sup>

23. Treatment has improved so drastically for COVID-19 that according to the CDC AH Provisional COVID-19 Death Counts by Age, there were no deaths in Colorado for the 0-17 age group in 2020 or 2021. This is evidence of less virulent strains of SARS-CoV-2 and better treatment and less risk for students and a generally lowered virulence for the SARS-CoV-2 strains as the pandemic progresses over time.

24. In my expert medical opinion, the combination of lowering COVID-19 rates, achievement of herd immunity, the low risk of hospitalization and death among children, and the drastically improved treatment options make the Emergency Use Authorization for the investigational COVID-19 vaccine sponsored by the US FDA and CDC, unreasonable from a scientific and medical perspective.

<sup>10</sup> *Id.*; see also National Institutes of Health, *Therapeutic Management of Adults With COVID-19* (Updated May 24, 2021), <https://www.COVID-19treatmentguidelines.nih.gov/management/therapeutic-management/> (last visited June 21, 2021).

## COVID-19 Vaccine Research and Development

25. The recent FDA August 23, 2021, continuation of the EUA for Pfizer and the conditional approval of the BNT vaccine gives me no comfort; the process was not conducted properly. Pfizer-BNT conducted a registrational clinical trial which was randomized, double-blind, placebo-controlled among 2260 adolescents age 12-15 years of age and the trial did not demonstrate a clinically meaningful benefit in COVID-19 outcomes nor did it have any reported impact on child to family or child to teacher spread of the virus.<sup>11</sup> Among 1132 who received the Pfizer BNT162b2 vaccine, the prevention of 18 cases of mild COVID-19 was observed, and there were no cases of severe disease, hospitalizations, or deaths in either group. Approximately 80% and 60% of subjects had local and systemic reactions to the vaccine including pain at the injection site, fatigue, fever, and chills. Approximately 37% of adolescents required medication to control fever with the injections. It is my opinion that the prevention of mild viral upper respiratory-like infections, of which adolescents that age may have four or more times per year is not worth the risks to the body after an adolescent is injected with one of the COVID-19 vaccines. The conditional approval of BNT is for persons 16 years of age and older, thus there is overlap for the safety concerns seen in younger individuals.

26. The COVID-19 genetic vaccines (Pfizer, Moderna, J&J) skipped testing for genotoxicity, mutagenicity, teratogenicity, and oncogenicity. Thus, we do not know whether these products will change human genetic material, cause birth defects, reduce fertility, or cause cancer.

<sup>11</sup> (Frenck RW Jr, Klein NP, Kitchin N, Gurtman A, Absalon J, Lockhart S, Perez JL, Walter EB, Senders S, Bailey R, Swanson KA, Ma H, Xu X, Koury K, Kalina WV, Cooper D, Jennings T, Brandon DM, Thomas SJ, Türeci Ö, Tresnan DB, Mather S, Dormitzer PR, Şahin U, Jansen KU, Gruber WC; C4591001 Clinical Trial Group. Safety, Immunogenicity, and Efficacy of the BNT162b2 Covid-19 Vaccine in Adolescents. *N Engl J Med*. 2021 Jul 15;385(3):239-250. doi: 10.1056/NEJMoa2107456. Epub 2021 May 27. PMID: 34043894; PMCID: PMC8174030.)

27. The Pfizer, Moderna, and JNJ vaccines are considered “genetic vaccines” or vaccines produced from gene therapy molecular platforms which according to US FDA regulatory guidance are classified as gene delivery therapies and should be under a 15-year regulatory cycle with annual visits for safety evaluation by the research sponsors.<sup>12</sup>

28. FDA has “advised sponsors to observe subjects for delayed adverse events for as long as 15 years following exposure to the investigational gene therapy product, specifying that the long-term follow-up observation should include a minimum of five years of annual examinations, followed by ten years of annual queries of study subjects, either in person or by questionnaire.” (*emphasis added*) Thus, the administration of the Moderna, Pfizer, and JNJ vaccines should not be undertaken without the proper consent and arrangements for long-term follow-up which are currently not offered in the US. (*See*, EUA briefing documents for commitments as to follow up: Moderna<sup>13</sup>, Pfizer<sup>14</sup>, J&J<sup>15</sup>)

29. They have a dangerous mechanism of action in that they all cause the body to make an uncontrolled quantity of the pathogenic wild-type spike protein from the SARS-CoV-2 virus for at least two weeks probably a longer period based on the late emergence of vaccine injury reports. This is unlike all other vaccines where there is a set amount of antigen or live-attenuated virus. This means for Pfizer, Moderna, and J&J vaccines it is not predictable among patients who will produce more or less of the spike protein. The Pfizer, Moderna, and JNJ vaccines because they are different, are expected to produce different libraries of limited antibodies to the now extinct wild-type spike protein. We know the spike protein produced by the vaccines is obsolete because the

<sup>12</sup> Long Term Follow-up After Administration of Human Gene Therapy Products. Guidance for Industry. FDA-2018-D-2173. 2020. Accessed July 13, 2021, at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/long-term-follow-after-administration-human-gene-therapy-products>.

<sup>13</sup> <https://www.fda.gov/media/144434/download>

<sup>14</sup> <https://www.fda.gov/media/144245/download>

<sup>15</sup> <https://www.fda.gov/media/146219/download>

17<sup>th</sup> UK Technical Report on SARS-CoV-2 Variants issued June 25, 2021, and the CDC June 19, 2021, Variant Report both indicate the SARS-CoV-2 wild type virus to which all the vaccines were developed is now extinct.<sup>16</sup>

30. The spike protein itself has been demonstrated to injure vital organs such as the brain, heart, lungs, as well as damage blood vessels and directly cause blood clots. Additionally, because these vaccines infect cells within these organs, the generation of spike protein within heart and brain cells, in particular, causes the body's own immune system to attach to these organs. This is abundantly apparent with the burgeoning number of cases of myocarditis or heart inflammation among individuals below age 30 years.

31. Because the US FDA and CDC have offered no methods of risk mitigation for these serious adverse effects which can lead to permanent disability or death, no child should be pressured, coerced, receive the threat or reprisal, or be mandated to receive one of these investigational products against their will. Because the vaccine centers, CDC, FDA, and the vaccine manufacturers ask for the vaccine recipient to grant indemnification on the consent form before injection, all injuries incurred by children and young adults are at their own cost which can be prohibitive depending on the needed procedures, hospitalizations, rehabilitation, and medications.

32. In general, it is never good clinical practice to widely utilize novel biological products in populations that have not been tested in registrational trials. For COVID-19 vaccines, this includes COVID-19 survivors, those with prior suspected COVID-19 infection, those with positive SARS-

<sup>16</sup> For additional information, see [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1001354/Variants\\_of\\_Concern\\_VOC\\_Technical\\_Briefing\\_17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001354/Variants_of_Concern_VOC_Technical_Briefing_17.pdf)

CoV-2 serologies, pregnant women, and women of childbearing potential who cannot assure contraception.

33. It is never good research practice to perform a large-scale clinical investigation without the necessary structure to ensure the safety and protection of human subjects. These structures include a critical event committee, data safety monitoring board, and human ethics committee. These groups in large studies work to objectively assess the safety of the investigational product and research integrity. The goal is mitigating risk and protecting human subjects. It is my understanding that the COVID-19 vaccine program is sponsored by the CDC and FDA and has none of these safety structures in place. It is my assessment, that the COVID-19 clinical investigation has provided no meaningful risk mitigation for subjects (restricting groups, a special assessment of side effects, follow-up visits, or changes in the protocol to ensure or improve the safety of the program).<sup>17</sup>

### **COVID-19 Vaccine Risks to Children and Adolescents**

34. The COVID-19 public vaccination program operated by the CDC and the FDA is a clinical investigation and under no circumstance can any person receive pressure, coercion, or threat of reprisal on their free choice of participation. Violation of this principle of autonomy by any entity constitutes reckless endangerment with a reasonable expectation of causing personal injury resulting in damages.

35. The current COVID-19 vaccines are not sufficiently protective against contracting COVID-19 to support its use beyond the current voluntary participation in the CDC-sponsored program. A total of 10,262 SARS-CoV-2 vaccine breakthrough infections had been reported from

<sup>17</sup> See <https://www.authorea.com/users/414448/articles/522499-sars-cov-2-mass-vaccination-urgent-questions-on-vaccine-safety-that-demand-answers-from-international-health-agencies-regulatory-authorities-governments-and-vaccine-developers> (checked August 25, 2021).

46 U.S. states and territories as of April 30, 2021. Among these cases, 6,446 (63%) occurred in females, and the median patient age was 58 years (interquartile range = 40–74 years). Based on preliminary data, 2,725 (27%) vaccine breakthrough infections were asymptomatic, 995 (10%) patients were known to be hospitalized, and 160 (2%) patients died. Among the 995 hospitalized patients, 289 (29%) were asymptomatic or hospitalized for a reason unrelated to COVID-19. The median age of patients who died was 82 years (interquartile range = 71–89 years); 28 (18%) decedents were asymptomatic or died from a cause unrelated to COVID-19. Sequence data were available from 555 (5%) reported cases, 356 (64%) of which were identified as SARS-CoV-2 variants of concern, including B.1.1.7 (199; 56%), B.1.429 (88; 25%), B.1.427 (28; 8%), P.1 (28; 8%), and B.1.351 (13; 4%). None of these variants are encoded in the RNA or DNA of the current COVID-19 vaccines. In response to these numerous reports, the CDC announced on May 1, 2021, that community breakthrough cases would no longer be reported to the public and only those vaccine failure cases requiring hospitalization will be reported, presumably on the CDC website.<sup>18</sup> This overt asymmetric reporting will create the false picture of only unvaccinated individuals developing COVID-19; in reality, patients who are fully vaccinated will be contracting breakthrough infections except for those vaccinated individuals who were previously immune from prior COVID-19 infection.

36. The Delta variant of SARS-CoV-2 accounts for most cases in the United Kingdom, Israel, and the United States. Because of progressive mutation of the spike protein, the virus has achieved an immune escape from the COVID-19 vaccines with the most obvious example being Israel where indiscriminate vaccination achieved 80% immunization rates. *See Table 4, below.*

<sup>18</sup> See <https://www.cdc.gov/mmwr/volumes/70/wr/mm7021e3.htm> (August 25, 2021).

37. This has promoted the emergence of the Delta variant as the dominant strain and because it is not adequately covered by the Pfizer COVID-19 vaccine, >80% of COVID-19 cases have occurred the fully vaccinated. This confirms the failure of the vaccines against COVID-19.

Israel Confirmed Cases, July 11th - July 17th				
Age Group	Cases Fully Vaccinated	Cases Unvaccinated	Percent of Cases Fully Vaccinated	Percentage of Population Fully Vaccinated
20-29	441	124	78.1%	71.9%
30-39	481	127	79.1%	77.4%
40-49	554	113	83.1%	80.9%
50-59	366	53	87.4%	84.4%
60-69	363	33	91.7%	86.9%
70-79	236	13	94.8%	92.8%
80-89	68	8	89.5%	91.2%
90+	14	2	84.8%	89.7%
Source 01: <a href="https://data.gov.il/dataset/covid-19/resource/9b623a64-f7df-4d0c-9f57-09bd99a88880">https://data.gov.il/dataset/covid-19/resource/9b623a64-f7df-4d0c-9f57-09bd99a88880</a>				
Source 02: <a href="https://datadashboard.health.gov.il/COVID-19/general">https://datadashboard.health.gov.il/COVID-19/general</a>				

**Table 4: Israel Confirmed Cases, Vaccinated vs. Unvaccinated** <sup>19</sup>

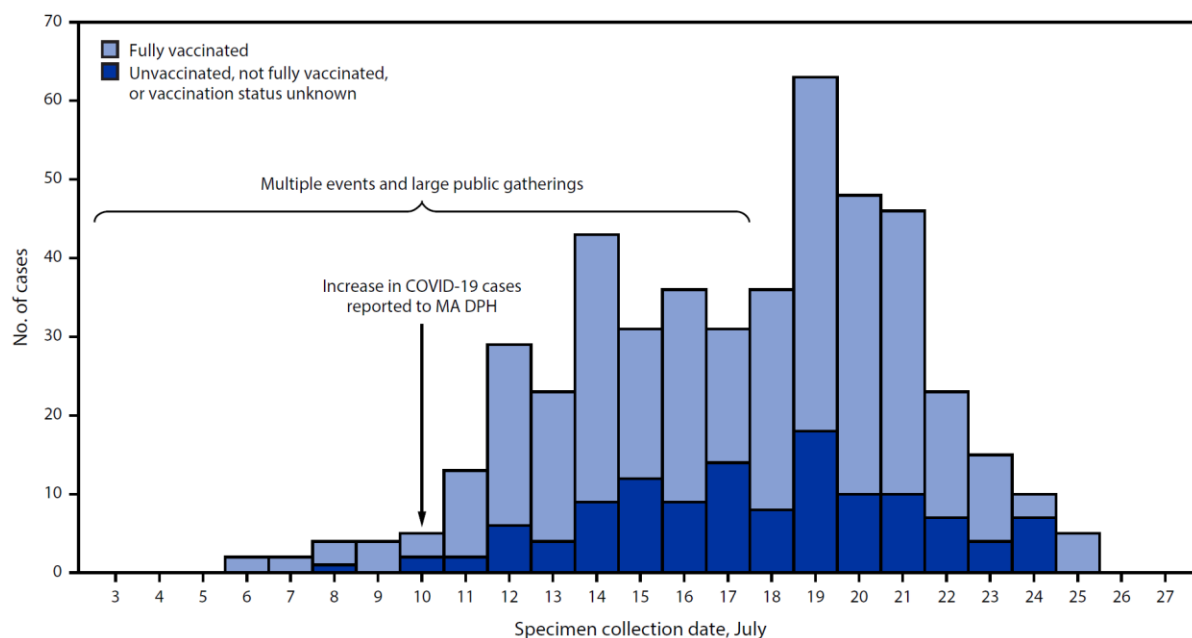
38. In the SARS-CoV-2 variants of concern and variants under investigation in England Technical briefing 17 25 June 2021, 92,056 cases had the Delta variant and 50/7235 fully vaccinated and 44/53,822 of the unvaccinated died. This indicates that the fully vaccinated who contract the Delta variant have an 8.6-fold increased risk for death, (95% CI 5.73-12.91),  $p < 0.0001$ , as compared to those who chose to remain unvaccinated. <sup>20</sup>

<sup>19</sup> See <https://datadashboard.health.gov.il/COVID-19019/general>

<sup>20</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1001354/Variant\\_s\\_of\\_Concern\\_VOC\\_Technical\\_Briefing\\_17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001354/Variant_s_of_Concern_VOC_Technical_Briefing_17.pdf) (checked August 25, 2021).

39. The CDC has published a report titled: “Outbreak of SARS-CoV-2 Infections, Including COVID-19 Vaccine Breakthrough Infections, Associated with Large Public Gatherings — Barnstable County, Massachusetts, July 2021” demonstrating complete failure of the COVID-19 in controlled spread of SARS-CoV-2 in congregate settings. My interpretation of this report is that the vaccines are not sufficiently effective to make the elective, investigation vaccine recommended for use beyond individual preference.

FIGURE 1. SARS-CoV-2 infections (N = 469) associated with large public gatherings, by date of specimen collection and vaccination status\* — Barnstable County, Massachusetts, July 2021



Abbreviation: MA DPH = Massachusetts Department of Public Health.

\* Fully vaccinated was defined as  $\geq 14$  days after completion of state immunization registry–documented COVID-19 vaccination as recommended by the Advisory Committee on Immunization Practices.

40. In 1990, the Vaccine Adverse Event Reporting System (“VAERS”) was established as a national early warning system to detect possible safety problems in U.S. licensed vaccines. VAERS is a passive reporting system, meaning it relies on individuals to voluntarily send in reports to the CDC and FDA. VAERS is useful in detecting unusual or unexpected patterns of adverse event reporting that might indicate a possible safety problem with a vaccine.



41. The total safety reports in VAERS for all vaccines per year up to 2019 was 16,320. The total safety reports in VAERS for COVID-19 Vaccines alone through Jun 18, 2021, is 387,288.

42. Based on VAERS as of August 13, 2021, there were 13,068 COVID-19 vaccine deaths reported and 54,142 hospitalizations reported for the COVID-19 vaccines (Pfizer, Moderna, JNJ). See VAERS COVID-19 Vaccine Data, attached as Exhibit B. By comparison, from 1999, until December 31, 2019, VAERS received 3167 death reports (158/ year) adult death reports for all vaccines combined.<sup>21</sup> Thus, COVID-19 mass vaccination is associated with at least a 39-fold increase in annualized vaccine deaths reported to VAERS.

43. COVID-19 vaccine adverse events account for 98% of all vaccine-related AEs from December 2020 through the present in VAERS.

44. The COVID-19 vaccines are not safe for general use and cannot be deployed indiscriminately or supported, recommended, or mandated among any group.

45. There are emerging trends showing that the vaccine is especially risky for those 12-29 in my expert medical opinion with complications in the cardiovascular, neurological, hematologic, and immune systems. (*See, Rose J, et al.*)

46. Increasingly the medical community is acknowledging the possible risks and side effects including myocarditis, Bell's Palsy, Pulmonary Embolus, Pulmonary Immunopathology, and severe allergic reaction causing anaphylactic shock.<sup>22</sup> Centers for Disease Control and Prevention, Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine — United States, December 14–23, 2020 (Jan 15, 2021).<sup>23</sup>

<sup>21</sup>Pedro L. Moro, Jorge Arana, Mria Cano, Paige Lewis, and Tom T. Shimabukuro, Deaths Reported to the Vaccine Adverse Event Reporting System, United States, 1997-2013, VACCINES, CID 2015:61 (September 2015).

<sup>22</sup> See Chien-Te Tseng, Elena Sbrana, Naoko Iwata-Yoshikawa, Patrick C Newman, Tania Garron, Robert L Atmar, Clarence J Peters, Robert B Couch, Immunization with SARS coronavirus vaccines leads to pulmonary immunopathology on challenge with the SARS virus, <https://pubmed.ncbi.nlm.nih.gov/22536382/>

<sup>23</sup> <https://www.cdc.gov/mmwr/volumes/70/wr/mm7002e1.htm> (checked August 25, 2021).

47. The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis. It is known that myocarditis causes injury to heart muscle cells and may result in permanent heart damage resulting in heart failure, arrhythmias, and cardiac death. These conditions could call for a lifetime need for multiple medications, implantable cardio defibrillators, and heart transplantation. Heart failure has a five-year 50% survival and would markedly reduce the lifespan of a child or young adult who develops this complication after vaccine-induced myocarditis (ref McCullough PA Reach Study)

48. COVID-19 vaccine-induced myocarditis has a predilection for young males below age 30 years.<sup>24</sup> The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis and the US FDA has issued a warning on the Pfizer and Moderna vaccines for myocarditis.<sup>25</sup> In the cases reviewed by the CDC and FDA, 90% of children with COVID-19 induced myocarditis developed symptoms and clinical findings sufficiently severe to warrant hospitalization. Because this risk is not predictable and the early reports may represent just the tip of the iceberg, no individual under age 30 under any set of circumstances should feel obliged to take this risk with the current genetic vaccines particularly the Pfizer and Moderna products.

49. Multiple recent studies and news reports detail people 18-29 dying from myocarditis after receiving the COVID-19 vaccine. According to the CDC, 475 cases of pericarditis and

<sup>24</sup> Abu Mouch S, Roguin A, Hellou E, Ishai A, Shoshan U, Mahamid L, Zoabi M, Aisman M, Goldschmid N, Berar Yanay N. Myocarditis following COVID-19 mRNA vaccination. *Vaccine*. 2021 Jun 29;39(29):3790-3793. doi: 10.1016/j.vaccine.2021.05.087. Epub 2021 May 28. PMID: 34092429; PMCID: PMC8162819.

<sup>25</sup> <https://www.fda.gov/news-events/press-announcements/coronavirus-COVID-19-update-june-25-2021>.

myocarditis<sup>26</sup> have been identified in vaccinated citizens aged 30 and younger. See FDA, Vaccines and Related Biological Products Advisory Committee June 10, 2021, Meeting Presentation.<sup>27</sup>


50. The FDA found that people 12-24 account for 8.8% of the vaccines administered, but 52% of the cases of myocarditis and pericarditis were reported. *Id.*

**Table 5: VAERS Report**

**Preliminary myocarditis/pericarditis reports to VAERS following dose 2 mRNA vaccination, Exp. vs. Obs. (data thru May 31, 2021)**

Age groups	Doses admin	Crude reporting rate*	Expected†,‡ Myocarditis/pericarditis cases	Observed† Myocarditis/pericarditis reports
12–15 yrs	134,041	22.4	0–1	2
<b>16–17 yrs</b>	<b>2,258,932</b>	<b>35.0</b>	<b>2–19</b>	<b>79</b>
<b>18–24 yrs</b>	<b>9,776,719</b>	<b>20.6</b>	<b>8–83</b>	<b>196</b>
25–39 yrs	26,844,601	5.0	23–228	124
40–49 yrs	19,576,875	3.0	17–166	51
50–64 yrs	36,951,538	1.3	31–314	39
65+ yrs	42,124,078	0.9	36–358	26
NR	—	—	—	11

8.8% of doses admin { } n=277 reports  
52.5% of total reports

 \* Per million doses administered; † Assumes a 31-day post-vaccination observation window; ‡ 528 reports with symptom onset within 30 days of vaccination shown; † Based on Gubernot et al. U.S. Population-Based background incidence rates of medical conditions for use in safety assessment of COVID-19 vaccines. Vaccine. 2021 May 14;50(26):410X(21):00578-8.

Further, the CDC just announced that the vaccine is “likely linked” to myocarditis. Advisory Board, CDC panel reports ‘likely association’ of heart inflammation and mRNA COVID-19 vaccines in young people.<sup>28</sup>

51. The CDC recently released data stating that there have been 267 cases of myocarditis or pericarditis reported after receiving one dose of the COVID-19 vaccines and 827 reported cases

<sup>26</sup> Myocarditis is inflammation of the heart muscle, whereas pericarditis is inflammation of the sac-like tissue around the heart called the pericardium.

<sup>27</sup> <https://www.fda.gov/media/150054/download#page=17> (checked August 25, 2021).

<sup>28</sup> <https://www.advisory.com/daily-briefing/2021/06/24/heart-inflammation> (checked August 25, 2021).

after two doses through June 11. There are 132 additional cases where the number of doses received is unknown. *Id.*

52. There have been 2466 reported cases of myocarditis that have occurred, and the median age is thirty. *Id.*<sup>29</sup>

53. I have seen and examined adolescent patients with post-COVID-19 myocarditis which typically occurs two days after the injection, most frequently after the second injection of mRNA products (Pfizer, Moderna). The clinical manifestations can be chest pain, signs and symptoms of heart failure, and arrhythmias. The diagnosis usually requires a clinical or hospital encounter, 12-lead electrocardiogram, blood tests including cardiac troponin (test for heart muscle damage), ECG monitoring, and cardiac imaging with echocardiography or cardiac magnetic resonance imaging. Given the risks for either manifest or future left ventricular dysfunction, patients are commonly prescribed heart failure medications (beta-blockers, renin-angiotensin system, inhibitors), and aspirin. More complicated patients require diuretics and anticoagulants. For post- COVID-19 vaccine myocarditis, I follow current position papers on the topic and restrict physical activity and continue medications for approximately three months before blood biomarkers and cardiac imaging are reassessed. If there is concurrent pericarditis, non-steroidal anti-inflammatory agents and colchicine may additionally be prescribed. Multiple medical studies are starting to come out detailing this problem.<sup>30</sup>

<sup>29</sup> See ongoing reports at <https://www.openvaers.com/openvaers>.

<sup>30</sup> See, e.g., Tommaso D'Angelo MD, Antonino Cattafi MD, Maria Ludovica Carerj MD, Christian Booz MD, Giorgio Ascenti MD, Giuseppe Cicero MD, Alfredo Blandino MD, Silvio Mazziotti MD, Myocarditis after SARS-CoV-2 Vaccination: A Vaccine-induced Reaction?, Pre-proof, Canadian Journal of Cardiology, [https://www.onlinecjc.ca/article/S0828-282X\(21\)00286-5/fulltext](https://www.onlinecjc.ca/article/S0828-282X(21)00286-5/fulltext) (last visited June 26, 2021); Jeffrey Heller, Israel sees probable link between Pfizer vaccine and myocarditis cases (June 2, 2021), <https://www.reuters.com/world/middle-east/israel-sees-probable-link-between-pfizer-vaccine-small-number-myocarditis-cases-2021-06-01/> (last visited June 26, 2021); Tschöpe C, Cooper LT, Torre-Amione G, Van Linthout S. Management of Myocarditis-Related Cardiomyopathy in Adults. *Circ Res.* 2019 May 24;124(11):1568-1583. doi: 10.1161/CIRCRESAHA.118.313578. PMID: 31120823. Caforio AL, Pankuweit S,

54. The US FDA has given an update on the JNJ vaccine concerning the risk of cerebral venous sinus thrombosis and thrombosis with thrombocytopenia in women ages 18-48 associated with low platelet counts.<sup>31</sup> This complication causes a variety of stroke-like syndromes that can involve the cranial nerves, vision, and coordination. Blood clots in the venous sinuses of the brain are difficult to remove surgically and require blood thinners sometimes with only partial recovery. In some cases, special glasses are required to correct vision and these young adults can be expected to miss considerable time away from school undergoing neurological rehabilitation. Because this risk is not predictable no woman under age 48 under any set of circumstances should feel obliged to take this risk with the JNJ vaccine.

55. Additionally, the US FDA has an additional warning for Guillen-Barre Syndrome or ascending paralysis for the JNJ vaccine which is not predictable and when it occurs can result in ascending paralysis, respiratory failure, the need for critical care, and death. Not all cases completely resolve, and some vaccine victims may require long term mechanical ventilation, or become quadra- or paraplegics. Prolonged neurological rehabilitation is commonly required, and this will call for time away from school and studies for those children injured from the JNJ vaccine with Guillen-Barre Syndrome.<sup>32</sup>

56. The vaccine is also far less safe than previous vaccines like the meningococcal meningitis vaccine that is typically required on college campuses which in 2019 recorded zero deaths. The

Arbustini E, Basso C, Gimeno- Blanes J, Felix SB, Fu M, Heliö T, Heymans S, Jahns R, Klingel K, Linhart A, Maisch B, McKenna W, Mogensen J, Pinto YM, Ristic A, Schultheiss HP, Seggewiss H, Tavazzi L, Thiene G, Yilmaz A, Charron P, Elliott PM; European Society of Cardiology Working Group on Myocardial and Pericardial Diseases. Current state of knowledge on aetiology, diagnosis, management, and therapy of myocarditis: a position statement of the European Society of Cardiology Working Group on Myocardial and Pericardial Diseases. *Eur Heart J*. 2013 Sep;34(33):2636-48, 2648a-2648d. doi: 10.1093/eurheartj/eh210. Epub 2013 Jul 3. PMID: 23824828.

<sup>31</sup> <https://www.fda.gov/news-events/press-announcements/joint-cdc-and-fda-statement-johnson-johnson-COVID-19-vaccine>.

<sup>32</sup> <https://www.fda.gov/media/150723/download> (checked August 25, 2021).

COVID-19 vaccines since their EUA approval on May 10, 2021, have already claimed the lives of 15 children and 79 young individuals under age 30 (VAERS).

57. For example, the VAERS (Vaccine Adverse Event Reporting System) data from the CDC shows, for 18-29-year-olds, there have been no deaths from the meningococcal vaccine from 1999 - 2019. See, United States Department of Health and Human Services (DHHS), Public Health Service (PHS), Centers for Disease Control (CDC)/Food and Drug Administration (FDA), Vaccine Adverse Reporting System (VAERS) 1990 - 06/11/2021, CDC WONDER On-line Database.<sup>33</sup>

58. The main side effects people reported from the meningitis vaccine are headache, injection site pain, nausea, chills, and a fever, and even these were limited as no more than fifteen of each were reported. *Id.* The student population and their parents, in general, accept the requirements for meningococcal vaccination because the vaccines are safe, effective, and do not pose a risk of death, unlike the COVID-19 vaccines.

59. In the brief time the COVID-19 vaccines have been available, there have been many more serious symptoms and even a death of a healthy 13-year-old boy.<sup>34</sup> (See Nationwide VAERS COVID-19 Vaccine Data through June 18, 2021.<sup>35</sup>)

60. The World Health Organization said that children should not be vaccinated for the moment before they faced tremendous backlash.<sup>36</sup>

<sup>33</sup> Accessed at: <https://wonder.cdc.gov/vaers.html>.

<sup>34</sup> <https://www.newsweek.com/13-year-old-dies-sleep-after-receiving-pfizer-COVID-19-vaccine-cdc-investigating-1606529> (checked August 25, 2021).

<sup>35</sup> VAERS may be publicly accessed at <https://www.openvaers.com/COVID-19-data>.

<sup>36</sup> WHO, COVID-19 Advice for the public: Getting vaccinated <https://web.archive.org/web/20210408183900/https://www.who.int/emergencies/diseases/novel-coronavirus-2019/COVID-19-vaccines/advice> (checked August 25, 2021).

61. Further, milder side effects from the vaccine include changes in hormone and menstrual cycles in women, fever, swelling at the injection site, etc. Jill Seladi-Schulman, Ph.D., Can COVID-19 or the COVID-19 Vaccine Affect Your Period?<sup>37</sup>

62. Recent studies from Tess Lawrie, a highly respected evidence-based professional, on the UK's equivalent of the VAERS systems concluded that the vaccines were unsafe for use in humans due to the extensive side effects they are causing.<sup>38</sup>

### **Risks of COVID-19 Vaccines for Those Recovered from COVID-19**

63. There is recent research on the fact that the COVID-19 vaccine is dangerous for those who have already had COVID-19 and have recovered with inferred robust, complete, and durable immunity. These patients were excluded from the FDA-approved clinical trials performed by Pfizer, Moderna, and J&J. From these trials the safety profile was unknown when the products for approved for Emergency Use Authorization in 2020. There has been no study demonstrating clinical benefit with COVID-19 vaccination in those who have well documented or even suspected prior COVID-19 illness.

64. A medical study of United Kingdom healthcare workers who had already had COVID-19 and then received the vaccine found that they suffered higher rates of side effects than the average population.

65. The test group experienced more moderate to severe symptoms than the study group that did not previously have COVID-19. Id.

<sup>37</sup> Rachael K. Raw, Clive Kelly, Jon Rees, Caroline Wroe, David R. Chadwick, Previous COVID-19 infection but not Long-COVID-19 is associated with increased adverse events following BNT162b2/Pfizer vaccination, (pre-print) <https://www.medrxiv.org/content/10.1101/2021.04.15.21252192v1> (checked August 25, 2021).

<sup>38</sup> Tess Lawrie, Re. Urgent preliminary report of Yellow Card data up to 26th May 2021, (June 9, 2021), <https://www.skirsch.com/covid/TessLawrieYellowCardAnalysis.pdf> (accessed August 25, 2021).



66. The symptoms include fever, fatigue, myalgia-arthralgia, and lymphadenopathy. *Id.* Raw found that in 974 individuals who received the BNT162b2/Pfizer vaccine, those with a prior history of SARS-CoV-2 or those who had positive antibodies at baseline had a higher rate of vaccine reactions than those who were COVID-19 naive. *Id.*

67. Mathioudakis et al. reported that in 2020 patients who underwent vaccination with either mRNA-based or vector-based COVID-19 vaccines, COVID-19-recovered patients who were needlessly vaccinated had higher rates of vaccine reactions.<sup>39</sup>

68. Krammer et al. reported on 231 volunteers for COVID-19 vaccination, 83 of whom had positive SARS-CoV-2 antibodies at the time of immunization. The authors found: “Vaccine recipients with preexisting immunity experience systemic side effects with a significantly higher frequency than antibody naïve vaccines (e.g., fatigue, headache, chills, fever, muscle or joint pains, in order of decreasing frequency,  $P < 0.001$  for all listed symptoms, Fisher’s exact test, two-sided).”<sup>40</sup>

### **Natural Immunity to COVID-19**

69. To my knowledge, there are no studies that demonstrate the clinical benefit of COVID-19 vaccination in COVID-19 survivors or those with suspected COVID-19 illness or subclinical disease who have laboratory evidence of prior infection.

70. It is my opinion that SARS-CoV-2 causes an infection in humans that results in robust, complete, and durable immunity, and is superior to vaccine immunity which by comparison has demonstrated massive failure including over 10,000 well-documented vaccine failure cases as reported by the CDC before tracking was stopped on May 31, 2021. There are no studies demonstrating the clinical benefit of COVID-19 vaccination in COVID-19 survivors and there are

<sup>39</sup> See <https://www.medrxiv.org/content/10.1101/2021.02.26.21252096v1>

<sup>40</sup> See <https://www.medrxiv.org/content/10.1101/2021.01.29.21250653v1> (checked August 25, 2021).

three studies demonstrating harm in such individuals. Thus, it is my opinion that the COVID-19 vaccination is contraindicated in COVID-19 survivors, many of whom may be in the student population.

71. Multiple laboratory studies conducted by highly respected U.S. and European academic research groups have reported that convalescent mildly or severely infected COVID-19 patients who are unvaccinated can have greater virus-neutralizing immunity—especially more versatile, long-enduring T- cell immunity—relative to vaccinated individuals who were never infected.<sup>41</sup>

72. Cleveland Clinic studied their employees for the effects of natural immunity in unvaccinated people.<sup>42</sup> They found zero SARS-CoV-2 reinfections during a 5-month follow-up among n=1359 infected employees who were naturally immune remained unvaccinated and concluded such persons are “*unlikely to benefit from COVID-19 vaccination.*” Among those who

<sup>41</sup> See Athina Kilpeläinen, et al., Highly functional Cellular Immunity in SARS-CoV-2 Non- Seroconvertors is associated with immune protection, bioRxiv (pre-print),

<https://www.biorxiv.org/content/10.1101/2021.05.04.438781v1>;

Tongcui Ma, et al., Protracted yet coordinated differentiation of long-lived SARS-CoV-2-specific CD8+ T cells during COVID-19 convalescence, bioRxiv (pre-print),

<https://www.biorxiv.org/content/10.1101/2021.04.28.441880v1>;

Saade C, Gonzalez C, Bal A, Valette M, Saker K, Lina B, Josset L, Trabaud MA, Thiery G, Botelho-Nevers E, Paul S, Verhoeven P, Bourlet T, Pillet S, Morfin F, Trouillet-Assant S, Pozzetto B, On Behalf Of Covid-Ser Study Group. Live virus neutralization testing in convalescent patients and subjects vaccinated against 19A, 20B, 20I/501Y.V1 and 20H/501Y.V2 isolates of SARS-CoV-2. Emerg Microbes Infect. 2021 Dec;10(1):1499-1502. doi: 10.1080/22221751.2021.1945423. PMID: 34176436; PMCID: PMC8330769.

<https://pubmed.ncbi.nlm.nih.gov/34176436/>; Carmen Camara, et al. Differential effects of the second SARS-CoV-2 mRNA vaccine dose on T cell immunity in naïve and COVID-19 recovered individuals, bioRxiv (pre-print), <https://www.biorxiv.org/content/10.1101/2021.03.22.436441v1>;

Ellie N. Ivanova, et al., Discrete immune response signature to SARS-CoV-2 mRNA vaccination versus infection, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.04.20.21255677v1>;

Catherine J. Reynolds, et al, Prior SARS-CoV-2 infection rescues B and T cell responses to variants after first vaccine dose, (pre-print), <https://pubmed.ncbi.nlm.nih.gov/33931567/> ;

Yair Goldberg, et al., Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.04.20.21255670v1> (all checked August 25, 2021).

<sup>42</sup> Nabin K. Shrestha, Patrick C. Burke, Amy S. Nowacki, Paul Terpeluk, Steven M. Gordon, Necessity of COVID-19 vaccination in previously infected individuals, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.06.01.21258176v2> (checked August 25, 2021).

were vaccinated, unlike the naturally immune, there were vaccine failure or breakthrough cases of COVID-19. *Id.*

73. An analysis by Murchu et al demonstrated in 615,777 individuals which included well-documented COVID-19 as well as subclinical infections with positive serologies, there was a negligible incidence (<1%) of COVID-19 over the long term. Murchu found no evidence of waning immunity over time suggesting no possibility that future vaccination would be indicated for any reason.<sup>43</sup>

74. A recent article in Nature reported that prior infection induces long-lived bone marrow plasma cells which means the antibodies to prevent reinfection of COVID-19 are long-lasting.<sup>44</sup>

**As to my expert opinion regarding Mask Use for Children:**

75. I have come to understand that many people believe that mandated mask use in schools is a good idea. It is not. The most easily available data to reject mask use is the experience of other countries that show mask use is not part of the solution for children.

76. Sweden has more than a million school-age minors, but the school system employed mild social distancing and no masks and had zero deaths from COVID. A good summary regarding this well-documented experience appeared in the New England Journal of Medicine. The study, titled “Open Schools, Covid-19 and Child and Teacher Morbidity in Sweden,” found:

“Despite Sweden’s having kept schools and preschools open, researchers have found a low incidence of severe Covid-19 among schoolchildren and children of preschool age during the SARS-CoV-2 pandemic...No child with Covid-19 died...Among the 1,951,905 million children who were 1 to 16 years of age, 15 children had Covid-19, MIS-C, or both conditions and were admitted to an ICU, which is equal to 1 child in 130,000.”<sup>45</sup>

<sup>43</sup> See: <https://onlinelibrary.wiley.com/doi/10.1002/rmv.2260>

<sup>44</sup> Jackson S. Turner et. al. SARS-CoV-2 infection induces long-lived bone marrow plasma cells in humans, (May 24, 2021) <https://www.nature.com/articles/s41586-021-03647-4> (checked August 25, 2021).

<sup>45</sup> Open Schools, Covid-19, and Child and Teacher Morbidity in Sweden, N Engl J Med 2021; 384:669-671 DOI: 10.1056/NEJMc2026670, <https://www.nejm.org/doi/full/10.1056/NEJMc2026670> (checked Aug. 25, 2021).

77. Though many medical professionals studies assert that masking generally is useful, those opinions are based on mistaken leaps of logic. The studies generally ignore Sweden and other countries, and then assert that a combination of COVID-fighting techniques "may" prevent virus spread, not bothering to separate out effective and ineffective techniques. Sweden has used mild social distancing and had zero deaths due to COVID-19.

78. Even the occasional honest CDC study shows that mask use has, at best, a minor benefit. A study of COVID-19 spread in restaurants and mask use indicated a benefit of less than 2% spread reduction in a location where masks are used for more than 100 days.<sup>46</sup>

79. The latest study of which I am aware comes from the Annals of Internal Medicine, which describes a randomized controlled trial, which concluded that, at best, masks were a minor benefit to virus spread. "Infection with SARS-CoV-2 occurred in 42 participants recommended masks (1.8%) and 53 control participants (2.1%)."<sup>47</sup> The study was honest enough to show that mask use is inconclusive with small clinically insignificant differences among the groups.

80. These studies show that mask use may have a benefit, but any benefit based on mask use is small. This makes sense, as the only time that a mask matters is an occasion where the wearer is singing or otherwise causing particulates emitted during a sneeze, *and* is infected with COVID-19, and the sneeze is directed at a person who is vulnerable *and* who would not have otherwise received a sufficient exposure to be vulnerable.

<sup>46</sup> Guy GP Jr., Lee FC, Sunshine G, et al. Association of State-Issued Mask Mandates and Allowing On-Premises Restaurant Dining with County-Level COVID-19 Case and Death Growth Rates — United States, March 1–December 31, 2020. MMWR Morb Mortal Wkly Rep 2021;70:350–354. DOI: <http://dx.doi.org/10.15585/mmwr.mm7010e3>, August 25, 2021).

<sup>47</sup> Henning Bundgaard *et al.* Annals of Internal Medicine November 2020; doi:<https://doi.org/10.7326/M20-6817>, "Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers" (<https://www.acpjournals.org/doi/10.7326/M20-6817>, August 25, 2021).

81. Even the popular N95 mask is not a filter capable of stopping the COVID-19 virus, and these masks are not particularly useful outside of a hygienic healthcare environment. The N95 mask must go through a fitting with dedicated personnel that check for leaks and proper seal using specialized equipment and gases. When I wear a mask for surgical reasons, I fit the mask to my face and do not disturb it until I'm removing it. My practice of such use is very different from a child or even an adult who is constantly fiddling with it, taking it down and back up, and is never fitted.

82. I am aware that many public officials take the position that there is no downside to wearing a mask. That is not true. Children continuously wearing masks results in fainting, fatigue, heightened levels of carbon dioxide, and other medical dangers. These are unknown risks which may not bear out for years.

83. It is my expert medical opinion that the masking of children in the face of a virus that is half as dangerous to minors as the common flu is to accept a cost-benefit with unknown costs. In such a situation, a policy maker may well decide that the cost is not worth the minor benefit.

**As to my expert opinion regarding Medical Facility Capacity:**

84. I am aware that some medical facilities are suggesting that the Delta variant of COVID-19 is filling hospitals and medical facilities. Any claim about capacity is a deliberate decision by these facilities to potentially promote vaccination of medical personnel and keep capacity high by letting staff go home when the facility is not full, as capacity is related to the staff available. Hospitals are designed to reduce staff so the occupancy is always high for maximal efficiency.

85. The most obvious way for a layman to see that hospitals are not beyond their actual ability to handle is the reality that the facilities are demanding vaccination of their personnel even when staff members have COVID-19 antibodies.

86. Lastly, Respiratory Syncytial Virus Infection (RSV) is responsible for many of the beds taken currently, which is an unusually prevalent problem at this time. I have noticed that media sources have referred to diminished capacity of medical facilities based on the combination of RSV and COVID-19, without making clear that RSV is the driver of the bed use.

### **CONCLUSION**

In my expert medical opinion, despite the current Delta variant outbreak, increasing likelihood of herd immunity to COVID-19, the low risk to children and adolescents of serious complications or death due to COVID-19, the negligible risk of asymptomatic spread of COVID-19, the vastly improved COVID-19 treatments currently available all make the risks inherent in COVID-19 significantly lower than they were in 2020.

It is my expert medical opinion that the Pfizer vaccine as tested in adolescents age 12-15 does not offer a significant clinical benefit and has a poor benefit to risk ratio. Vaccination to prevent mild viral upper respiratory symptoms in a small fraction (1.6%) of subjects is not justified given the short and longer-term risks of the vaccines.

It is my expert medical opinion that the COVID-19 vaccines are progressively losing efficacy over the prevention of COVID-19 and in widely vaccinated countries up to 80% of COVID-19 cases have been previously vaccinated implying the vaccines have become obsolete with antigenic escape or resistance to variants (e.g. Delta) that have evolved to infect persons who were vaccinated against the now extinct wild-type SARS-CoV-2 strain.

It is my expert medical opinion that it is not good research or clinical practice to widely utilize novel biologic therapy (mRNA, adenoviral DNA COVID-19 vaccines) in populations where there is no information generated from the registrational trials with the FDA, specifically,

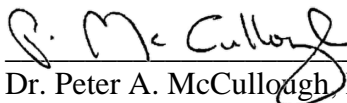
children and adolescents, COVID-19 survivors, suspected COVID-19-recovered, pregnant or women who could become pregnant at any time after investigational vaccines.

In my expert medical opinion, the risks associated with the investigational COVID-19 vaccines, especially those more prevalent among children and adolescents far outweigh any theoretical benefits, are not minor, and many of those risks are unknown or have not been adequately quantified nor has the duration of their consequences been evaluated or is calculable.

In my expert medical opinion, the approval or Emergency Use Authorization and administration of COVID-19 vaccines for children and adolescents aged 12-15 creates an unethical, unreasonable, clinically unjustified, unsafe, and poses an unnecessary risk to the children of the United States of America.

Similarly, the mandatory use of face coverings for children is not warranted in light of their medical agility regarding COVID-19 and the medical dangers of mask use. Even for adults, masks are a very small benefit, at most, and few policy makers are taking into account the medical cost of mandating masks.

Signed August 25, 2021,

  
Dr. Peter A. McCullough MD, MPH



Friday, August 6, 2021

**CURRICULUM VITAE****PETER A. McCULLOUGH, MD, MPH, FACP, FACC, FCCP, FAHA, FNKF, FNLA, FCRSA****Business**

Baylor University Medical Center  
 Worth Street Tower  
 3409 Worth Street, #500  
 Dallas TX 75246  
 Desk: 214-841-2000  
 Cell: 248-444-6905  
 e-mail: [PeterAMcCullough@gmail.com](mailto:PeterAMcCullough@gmail.com)

**Home**

5231 Richard Avenue  
 Dallas, TX 75206

**Birth date**

December 29, 1962

**Birthplace**

Buffalo, NY, USA

**EDUCATION**

- 1) Certificate of Graduate Liberal Arts Studies: Southern Methodist University, December 17, 2016, principal faculty Dr. Anthony Picchioni, PhD, Adjunct Professor in Human Development, P.O. Box 750181, Dallas, TX 75275, 214-768-3417, [www.smu.edu](http://www.smu.edu)
  - Graduated with Honor
- 2) Master of Public Health: University of Michigan School of Public Health, August 19, 1994, Dean Noreen M. Clark, PhD, 109 Observatory Street, Ann Arbor, MI 48109-2029, phone 734-764-5454, [www.sph.umich.edu](http://www.sph.umich.edu)
  - Major: General Epidemiology
- 3) Doctor of Medicine: University of Texas Southwestern Medical School, June 4, 1988, Dean Bryan M. Williams, MD, 5323 Harry Hines Boulevard, Dallas, TX 75235-9070, 214-648-3111, <http://www.utsouthwestern.edu/education/medical-school/>
  - Clinical year rank of 1 in 199, overall rank in class of 12 in 199
  - Alpha Omega Alpha Texas Gamma Chapter, installed March 17, 1988
- 4) Bachelor of Science: Baylor University, May 18, 1984, Chancellor Abner McCall, PhD, Office of the Registrar, Waco, TX 76798-7056, 254-710-1181, <http://www.baylor.edu/>
  - Double-major: Biology and Psychology
  - Graduated with Honor, degree rank of 29 in 131, university rank of 127 in 1,152

- Alpha Lambda Delta Freshman Honorary, installed March 19, 1981

## POSTGRADUATE TRAINING

- 1) Cardiovascular Diseases Fellowship: William Beaumont Hospital (WBH) (presently Oakland University William Beaumont School of Medicine), Division of Cardiology, 3601 W. Thirteen Mile Rd, Royal Oak, MI 48073, 248-551-4198, 7-1-94 to 6-30-97, Chief Cardiovascular Fellow for 1996-97, William W. O'Neill, MD, Program Director and Division Chief
- 2) Internal Medicine Residency: University of Washington School of Medicine, Department of Internal Medicine, 1959 NE Pacific, Seattle, WA 98195, (206) 543-3239, 3-year traditional track, 7-1-88 to 6-30-91, James F. Wallace, MD, Program Director, Paul G. Ramsey, MD, Chairman of Medicine

## PROFESSIONAL EXPERIENCE

HeartPlace Baylor Dallas Campus, Texas A & M University College of Medicine, Baylor Dallas Campus, 3409 Worth Street, Suite 500, Dallas TX 75246, March 1, 2021 to present.

Positions Held: 1) Attending Physician

Baylor Scott and White Health, Baylor Health Care System, Baylor University Medical Center (BUMC), Baylor Heart and Vascular Institute, Baylor Jack and Jane Hamilton Heart and Vascular Hospital, Dallas TX, Texas A & M University College of Medicine, Department of Medicine, Division of Cardiology, Baylor Heart and Vascular Institute, 621 N. Hall St., #H030, Dallas, TX 75226, February 3, 2014 to February 25, 2021. Cardiovascular Governance Council, Kevin Wheelan, MD, Cardiology Division Chief and Chief Medical Officer, Heart Institute Office (214) 820-7500

Positions Held: 1) Professor in the Principal Faculty, Non-Tenure Track in the Department of Internal Medicine, Texas A & M University Health Sciences Center  
2) Chief of Cardiovascular Research  
3) Program Director, BUMC Cardiovascular Diseases Fellowship Program  
4) Vice Chief, BUMC Internal Medicine

St. John Providence Health System, Providence Park Heart Institute, Department of Medicine, Cardiology Section, 47601 Grand River Avenue, Suite B-125, Novi, MI 48374, September 1, 2010 to July 19, 2013. Department of Medicine Chair, Anibal Drelichman, MD: 248-849-3152, Cardiology Section Chief: Shukri David, MD, 248-465-5955

Positions Held: 1) Chief Academic and Scientific Officer (Academic Dean Equivalent), St. John Providence Health System, (2010 to 2013)  
2) Medical Director, Clinical Lipidology, Department of Medicine, Cardiology Section (2010 to 2013)

William Beaumont Hospital, Department of Internal Medicine, Divisions of Nutrition and Preventive Medicine, Department of Cardiology, 3601 West Thirteen Mile Road, Royal Oak, MI 48073, October 1, 2002 to 2010. Department of Medicine Chair: Michael A. Maddens, M.D., 248-551-0622, Department of Cardiology Chair: David E. Haines, M.D., 248-858-0404

Oakland University William Beaumont School of Medicine, 472 O'Dowd Hall  
2200 N. Squirrel, Rochester, MI 48309, Robert Folberg, MD, Medical School Dean, Kenneth Hightower, PhD, Dean of Allied Health Sciences, 248-370-3562. Clinical Professor of Health Sciences and Medicine (2007 to 2010)

Positions Held: 1) Consultant Cardiologist and Chief, Division of Nutrition and Preventive Medicine (2002 to 2010), Department of Internal Medicine  
2) Medical Director, Preventive Cardiology (2002 to 2010)  
3) Medical Director, Lipid Apheresis Program (2007 to 2010)  
4) Medical Director, Weight Control Center (2002-2005)

University of Missouri-Kansas City (UMKC) School of Medicine, Truman Medical Center,  
Department of Medicine, Cardiology Section, 2301 Holmes St., Kansas City, MO 64108. August 18, 2000-September 30, 2002. Department of Medicine Chair: George R. Reisz, M.D, 816-556-3450

Positions Held: 1) Associate Professor of Medicine (Tenure Track) and Cardiology Section Chief

Henry Ford Health System (HFHS), Henry Ford Heart and Vascular Institute, 2799 W. Grand Blvd., K-14, Detroit, MI 48202, July 1, 1997 to August 16, 2000. Cardiovascular Division Head: W. Douglas Weaver, M.D, 800-653-6568

Positions Held: 1) Assistant Professor of Medicine (Tenure Track), Case Western Reserve University School of Medicine, and HFHVI Senior Staff Cardiologist  
Medical Director, Preventive Cardiology, 1999-2000  
2) Program Director, Cardiovascular Diseases Fellowship Training Program, 1999-2000  
3) Director of Cardiovascular Informatics Section, 1997-2000  
4) Associate Director of the Center for Clinical Effectiveness, 1997-99  
5) Associate Director of the Cardiovascular Diseases Fellowship Program, 1998-99

Emergency Physicians Medical Group, PC, 2000 Green Road, Suite 300, Ann Arbor, MI 48105, 800-466-3764. Emergency medicine attending at Mission Health McPherson Hospital, Howell, 1991-1997; Oakwood Beyer Hospital Center, Ypsilanti 1991-1997, and Mercy Hospital, Grayling 1991-1992

Positions Held: 1) Associate Member  
2) Washtenaw County Human Services Deputy Medical Examiner, 1995-1996

Mercy Internal Medicine Associates, 308 Michigan Avenue, Grayling, MI 49738, Mercy Hospital-Grayling, 1100 Michigan Avenue, Grayling, MI 49738, 517-348-5461. Internal medicine attending at Mercy Hospital, Grayling, MI, 1991-1992

Positions Held: 1) Coronary Care Unit Director  
2) Physician Director of Cardiopulmonary Services

### **SPECIAL TRAINING**

- 1) The Healthcare Forum Cardiovascular Health Fellowship, 1998-99
- 2) American Heart Association (AHA), 23<sup>rd</sup> 10-Day U.S. Seminar on the Epidemiology and Prevention of Cardiovascular Disease, July-August, 1997
- 3) University of Michigan Summer Session in Epidemiology, 1997-99
- 4) Stanford University Course on Medical Informatics, Palo Alto, CA, June, 1997
- 5) Current Practice of Vascular Ultrasound 3-Day Course, Chicago, IL, April, 1997
- 6) Advanced Pacemaker Concepts Course, CPI, Inc., Lansing, MI, 1995
- 7) Pacesetter Comprehensive Pacemaker 4-Day Course, Santa Fe, NM, 1997
- 8) Medtronic Bakken Education Tutorial and Medtronic Applied Physiological Research Laboratory Lead Implantation Training and Biventricular Implantation Training (2 sessions), Minneapolis, MN, 2001-2002
- 9) 2004 ASCeXAM Review Course, American Society of Echocardiography, San Francisco, CA, April 22-24, 2004
- 10) National Lipid Association Masters Course in Clinical Lipidology, Hilton Head, SC, August 21-23, 2008

### **CERTIFICATION AND LICENSURE**

- 1) Licensed in the State of Washington 1988-1997 (#MD00027562), Michigan expires January 31, 2022 (#4301058147), and New York 1992 to present (#189283 inactive status), Missouri 2000-2002 (#2000165365 inactive status) and Texas expires May 31, 2022 (#P9222)
- 2) FLEX passed April 4, 1990, State of Washington, Department of Health, Board of Medical Examiners
- 3) Diplomate, American Board of Internal Medicine, Candidate #136084, September, 25, 1991, recertified May 1, 2001, recertified June 10, 2011, recertified April 6, 2021, valid through 2031, 510 Walnut Street, Suite 1700, Philadelphia, PA 19106-3699
- 4) Diplomate, American Board of Internal Medicine, Cardiovascular Diseases Subspecialty, Candidate #136084, November, 1997, valid through 2007, recertified October 1, 2007, valid through 2017, recertified September 28, 2017, valid through 2027, 510 Walnut Street, Suite 1700, Philadelphia, PA 19106-3699
- 5) Diplomate, American Board of Clinical Lipidology, September 27, 2008, 6816 Southpoint Parkway, Suite 1000, Jacksonville, FL 32216. Fellow, National Lipid Association

- 6) National Board of Echocardiography (NBE), Examination of Special Competence in Adult Echocardiography, 2004-2014 expired
- 7) Diplomate, American Board of Forensic Examiners, July 16, 1996, no expiration date

## RECOGNITION

### Teaching:

1. Henry Ford Hospital, 1999 Chief Medical Resident's Best Teacher Award

### Research:

1. Chest Foundation Young Investigator Award 2001, Philadelphia, PA, November 7, 2001, President's International Awards Ceremony
2. National Kidney Foundation (NKF) of Michigan, Innovations in Health Care Award Finalist 2008, East Lansing, MI, April 17, 2008
3. American College of Cardiology (ACC) Simon Dack Award for Scholarly Excellence by the Journal of the American College of Cardiology, March 5, 2009
4. 11<sup>th</sup> International Vicenza Award in Critical Care Nephrology, International Renal Research Institute, Vicenza, Italy, June 11, 2013

### Postgraduate:

1. Founding Fellow, Cardiorenal Society of America, March 2016
2. Fellow, National Lipid Association, January, 2013
3. Fellow, National Kidney Foundation, January, 2012
4. Fellow, American College of Chest Physicians, February, 2001
5. Fellow, American College of Physicians, January, 2001
6. Fellow, American College of Cardiology, February, 1999

## AFFILIATIONS

- 1) Alpha Omega Alpha, National Honor Medical Society, 1988 to present
- 2) American College of Emergency Physicians, Member, 1992-1994
- 3) American College of Forensic Examiners, Member 1996 to present
- 4) AHA, Council on Epidemiology and Prevention, 1995 to present
- 5) AHA, Grassroots Network, 1998-2000.
- 6) Central Society for Clinical Research, Member, 1999-2000
- 7) Council on Geriatric Cardiology, Member 1996-1997
- 8) Michigan Chapter of the ACC, Chair, Annual Cardiology Board Review, 1999-2000
- 9) Michigan State Medical Society, Member, 1997-2000, 2004 to 2009
- 10) The American Medical Informatics Association, 1997-2000
- 11) The Health Forum, Charter Cardiovascular Health Charter Alumni Representative, 1998 to 2002

- 12) Cardiorenal Society of America, Founding Executive Board Member, 2013 to present, Vice President 2014-2016, President 2016 to present
- 13) Dallas County Medical Society, 2014 to present
- 14) Texas Medical Association, 2014 to present
- 15) Baylor Alumni Association, 2015 to present
- 16) New York Academy of Sciences, 2016 to present
- 17) Truth for Health Foundation, Founding Executive Board Member, Chief Medical Advisor, 2021 to present

## EDITORIAL RESPONSIBILITIES

- 1) *Advances in Chronic Kidney Disease*, Editorial Board Member, 2003-present. [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE]
- 2) *American Journal of Cardiology*, Associate Editor, 2014 to present
- 3) *American Journal of Kidney Disease*, [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE] Associate Editor, 2006 to 2019, Guest Editor, 2011, 2012
- 4) *Arquivos Brasileiros de Cardiologia*, International Editorial Board, 2006 to present
- 5) *Biocritique*, Editorial Board, 2001 to 2013, [www.biocritique.com](http://www.biocritique.com)
- 6) *Blood Purification*, Editorial Board 2018 to present
- 7) *Cardiovascular Clinician*, Editorial Board, 2011 to 2013, internet site, [CARDIOVASCULARClinician.com](http://CARDIOVASCULARClinician.com)<sup>™</sup>
- 8) *Cardiovascular Diagnosis and Therapy (CDT)*, Editorial Board (Print ISSN: 2223-3652; Online ISSN: 2223-3660, 2012 to present)
- 9) *Cardiovascular Innovations and Applications (CVIA)*, Editorial Board 2015 to present
- 10) *Cardiorenal Medicine*, Associate Editor, 2016-2017, Editor-in-Chief 2018 to present
- 11) *Circulation*, Editorial Board, 2016 to present
- 12) *Circulation Heart Failure*, Editorial Board, 2008 to present, Associate Editor, 2008 to 2016, Guest Editor 2010, 2011, 2012
- 13) *Clinical Exercise Physiology*, Clinical Consultant to the Editorial Board, 1998-2002.
- 14) *Cochrane Renal Group Module*, 2008, Editorial Contributor, Centre for Kidney Research, The Children's Hospital at Westmead, Westmead NSW, Australia
- 15) *Expert Review of Cardiovascular Therapy*, Editorial Advisory Panel, 2002 to present, [www.future-drugs.com](http://www.future-drugs.com)
- 16) *Journal of the American College of Cardiology*, Editorial Consultant, 2003-present. "Elite Reviewer" Recognition, 2004, 2005, 2006, 2007, 2008, 2011, 2014, 2016 (DeMaria AN. The elite reviewer. J Am Coll Cardiol 2003;41(1):157-8.)
- 17) *Journal of Geriatric Cardiology*, Editorial Board Member, 2003-present. The Institute of Geriatric Cardiology, Chinese PLA Hospital, Beijing. [Joint China-U.S.A. publication]
- 18) *Journal of Biorepository Science for Applied Medicine*, Honorary Editorial Board, 2012 to 2018
- 19) *Journal of Clinical & Experimental Cardiology*, OMICS Publishing Group, Open Access, CrossRef, PubMed, DOAJ, Index Copernicus, Scientific Commons, EBSCO, 2010 to 2017
- 20) *Journal of Diabetes & Metabolism*, OMICS Publishing Group, Open Access, 2010 to 2017

- 21) *Journal of Interventional Cardiology*, “News and Views”, Section Editor, 2000-2003.  
Editorial Board Member, 2003 to present
- 22) *Journal of Nephrology and Therapeutics*, Editorial Board, OMICS Publishing Group, Editorial Board, 2010 to 2017
- 23) *Reviews in Cardiovascular Medicine*, MedReviews, LLC, [www.medreviews.com](http://www.medreviews.com) “Cardiorenal Function,” Section Editor, 2001-2002, Associate Editor, 2003-2009, Co-Editor, 2009 to present
- 24) *The American College of Cardiology Foundation ACCEL Audio Journal*, Editorial Board 2008 to present
- 25) *The Open Atherosclerosis & Thrombosis Journal*, [referenced through Bentham Open, PubMed, Google and Google Scholar] Editorial Board, 2008 to 2012
- 26) *The Open Heart Failure Journal*, [referenced through Bentham Open, PubMed, Google and Google Scholar] Editorial Board, 2008 to 2010
- 27) *Therapy*, [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE], Editorial Board, 2008 to 2010

#### **Manuscript Reviewer**

- 1) *Advances in Chronic Kidney Disease*, 2004 to present (18)
- 2) *Advances in Medical Sciences*, 2012 to present (2)
- 3) *Advances in Therapy*, 2008 to present (1).
- 4) *American Family Physician*, 2004 to present (2)
- 5) *American Journal of Cardiovascular Drugs*, 2002 to present. (2)
- 6) *American Heart Journal (AHJ)*, 1998 to present (22)
- 7) *American Journal of Cardiology (AJC)*, 1999 to present (60)
- 8) *American Journal of Human Biology*, 2014 to present (1)
- 9) *American Journal of Hypertension*, 2011 to present (1)
- 10) *American Journal of Kidney Diseases (AJKD)*, 2002 to present (30)
- 11) *American Journal of Medicine (AJM)*, 1997 to present (7)
- 12) *American Journal of the Medical Sciences (AJMS)*, 2006 to present (3)
- 13) *American Journal of Nephrology*, 2004 to present (24)
- 14) *American Journal of Physiology: Renal Physiology*, 2006 to present (2)
- 15) *American Journal of Transplantation*, 2004 to present (1)
- 16) *Annals of Epidemiology*, 2004 to present (1)
- 17) *Annals of Internal Medicine*, 2008 to present (3)
- 18) *Annals of Noninvasive Electrocardiology*, 2009 to present (1)
- 19) *Antimicrobial Agents and Chemotherapy*, 2020 to present (1)
- 20) *Archives of Internal Medicine*, 2004 to present (2)
- 21) *Archives of Pathology and Laboratory Medicine*, 2007 to present (1)
- 22) *Arteriosclerosis, Thrombosis, and Vascular Biology*, 2010 to present (2)
- 23) *Autonomic Neuroscience: Basic and Clinical*, 2007 to present (1)
- 24) *BUMC Proceedings*, 2012 to present (3)
- 25) *Biochemia Medica*, 2012 to present (1)
- 26) *Biomed Central (BMC) Medical Imaging*, 2010 to present (1)

- 27) *Blood Purification*, 2010 to present (2)
- 28) *BMC Medicine*, 2007 to present (1)
- 29) *BMC Nephrology*, 2011 to present (1)
- 30) *BMJ Clinical Evidence*, 2008 to present (1)
- 31) *British Medical Journal (BMJ)*, 2009 to present (1)
- 32) *Canadian Medical Association Journal (CMAJ)*, 2006 to present (3)
- 33) *Cardiac Failure Review*, 2015 to present (1)
- 34) *Cardiology*, 2007 to present (1)
- 35) *Cardiorenal Medicine*; 2013 to present (10)
- 36) *Cardiovascular Innovations and Applications*, 2016 to present (1)
- 37) *Cardiovascular Therapeutics*, 2010 to present (1)
- 38) *Catheterization and Cardiovascular Interventions*, 2000 to present (6)
- 39) *Chest*, 2000 to present (6)
- 40) *Circulation*, 1998 to present (100)
- 41) *Circulation Cardiovascular Interventions*, 2012 to present (1)
- 42) *Circulation Cardiovascular Quality and Outcomes*, 2010 to present (1)
- 43) *Circulation Heart Failure*, 2009 to present (4)
- 44) *Circulation Imaging*, 2012 to present (1)
- 45) *Cleveland Clinic Journal of Medicine*, 2008 to present (1)
- 46) *Clinica Chimica Acta*, 2013 (1)
- 47) *Clinical Cardiology*, 2001 (3)
- 48) *Clinical Chemistry and Laboratory Medicine*, 2010 to present (2)
- 49) *Clinical Exercise Physiology*, 2000-2002 (4)
- 50) *Clinical Journal of the American Society of Nephrology* 2008 to present (3)
- 51) *Clinical Kidney Journal*, 2012 to present (1)
- 52) *Clinical Medicine and Research*, 2008 to present (1)
- 53) *Clinical Nephrology*, 2008 to present (2)
- 54) *Clinical Physiology and Functional Imaging*, 2010 to present (1)
- 55) *Clinical Researcher*, 2002 to present (1)
- 56) *Clinics*, 2010 to present (1)
- 57) *Cochrane Collaboration*, 2009 to present (2)
- 58) *Congestive Heart Failure*, 2005 to present (4)
- 59) *Coronary Artery Disease*, 2005 to present (1)
- 60) *Critical Care Medicine*, 2008 to present (2)
- 61) *Current Medical Research and Opinion*, 2005 to present (1)
- 62) *Diabetes Care*, 2011 to present (2)
- 63) *Diabetes and Vascular Disease Research*, 2011 to present (1)
- 64) *Diabetes, Obesity, and Metabolism*, 2019 to present (1)
- 65) *Diabetic Medicine*, 2008 to present (1)
- 66) *Drug Benefit Trends*, 1999 (1)
- 67) *Drugs*, 2000 (2)
- 68) *European Heart Journal*, 1995 (12)
- 69) *European Journal of Cardiovascular Prevention and Rehabilitation*, 2006 (1)
- 70) *European Journal of Heart Failure*, 2012 (4)



- 71) *Expert Opinion on Pharmacotherapy*, 2003 to present (3)
- 72) *Expert Opinion Therapeutic Patents*, 2004 to present (1)
- 73) *Expert Review of Cardiovascular Therapy*, 2008 to present (2)
- 74) *Global Heart*, 2012 (1)
- 75) *Heart*, 2004 (2)
- 76) *Heart and Vessels*, 2007 (2)
- 77) *Hemodialysis International* 2013 (2)
- 78) *Internal Medicine Journal (Australasia)*, 2009 to present (1)
  
- 79) *International Journal of Infectious Diseases* 2020 to present (2)
- 80) *International Journal of Nephrology*, 2010 to present (2)
- 81) *Journal of Biomarkers*, 2013 (1)
- 82) *Journal of Geriatric Cardiology*, 2017 (1)
- 83) *International Journal of Infectious Diseases*, 2021 to present (3)
- 84) *Journal of Internal Medicine*, 2009 to present (1)
- 85) *Journal of Interventional Cardiology (JIC)*, 1996 to present (9)
- 86) *Journal of the American College of Cardiology (JACC)*, 1998 to present (228)
- 87) *Journal of the American College of Cardiology: Heart Failure (JACC Heart Fail)*, 2014 to present (12)
- 88) *Journal of the American College of Cardiology: Imaging (JACC Imag)*, 2014 to present (6)
- 89) *Journal of the American College of Cardiology: Interventions (JACC Interv)*, 2010 to present (10)
- 90) *Journal of the American Medical Association (JAMA)*, 2002 to present (60)
- 91) *Journal of the American Medical Association Cardiology (JAMA Cardiology)*, 2016 to present (20)
- 92) *Journal of the American Society of Echocardiography (JASE)*, 2009 to present (1)
- 93) *Journal of the American Society of Nephrology (JASN)* 2005 to present (14)
- 94) *Journal of Cardiac Failure*, 2003 to present (10)
- 95) *Journal of Clinical Outcomes Management*, 2011 to present (1)
- 96) *Journal of Critical Care*, 2011, to present (1)
- 97) *Journal of General Internal Medicine*, 2008 to present (1)
- 98) *Journal of Human Hypertension*, 2010 to present (1)
- 99) *Journal of Inherited Metabolic Disease*, 2014 to present (2)
- 100) *Journal of Lipid Research*, 2010 to present (1)
- 101) *Journal of Managed Care*, 2004 to present (1)
- 102) *Journal of Physiology and Pathophysiology*, 2009 to present (1)
- 103) *Kidney and High Blood Pressure Research*, 2008 to present (1)
- 104) *Kidney International*, 2004 to present (8)
- 105) *Medical Science Monitor*, 2008 to present (1)
- 106) *Medicine & Science in Sports and Exercise*, 2005 to present (3)
- 107) *Nature Clinical Practice Cardiovascular Medicine*, 2004 to present (4)
- 108) *Nature Clinical Practice Nephrology*, 2008 to present (1)
- 109) *Nature Reviews Nephrology*, 2009 to present (3)
- 110) *Nephron*, 2005 to present (1)

- 111) *Nephrology*, 2009 to present (1)
- 112) *Nephrology, Dialysis, and Transplantation*, 2005 to present (7)
- 113) *New England Journal of Medicine*, 2006 to present (8)
- 114) *Pharmacological Research (Italy)*, 1999 (1)
- 115) *Pharmaceutical Sciences*, 2011 (1)
- 116) *PLoS Medicine*, 2005 (1)
- 117) *PLOS ONE*, 2013 (1)
- 118) *Prehospital Emergency Care*, 2015 (1)
- 119) *Preventive Medicine*, 2008 (1)
- 120) *Rejuvenation Research*, 2007 (1)
- 121) *Renal Failure*, 2011 (2)
- 122) *The Lancet*, 1999 to present (11)
- 123) *The Lancet Diabetes*, 2013 to present (5)
- 124) *The Lancet Global Health*, 2015 to present (2)

### **Major Meeting Abstract Grader**

- 1) ACC Scientific Sessions 2001 to present (10)
- 2) ACC I2 Summit, 2006 to present (2)
- 3) American Diabetes Association, 2008 to present (13)
- 4) AHA Scientific Sessions, 1997 to present (8)
- 5) American Medical Informatics Association, Annual Symposium, 1998-2001 (3)
- 6) International Academy of Cardiology World Congress on Heart Disease, Academy of Cardiology Annual Scientific Sessions—Mechanisms and Management, 2002-present (3)
- 7) Transcatheter Therapeutics (TCT), 2004 (1)

### **Grant Reviewer**

- 1. National Medical Research Council, Singapore, 2003-2004
- 2. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Special Emphasis Panel/Initial Review Group 2006/01 ZDK1 GRB-9, 2005
- 3. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Special Emphasis Review Group, 1 R01 DK070033-01A2, 2006
- 4. National Institutes of Health, National Heart Lung and Blood Institute, Study Section, ZHL1 CSR-H (M1), March 6-7, 2006, Heart Failure Network
- 5. Diabetes UK, The British Diabetic Association, Macleod House, 10 Parkway, London NW1 7AA. December 24, 2008
- 6. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases, Special Review Panel, Chronic Renal Insufficiency Cohort Study (CRIC) and A Prospective Cohort Study of Kidney Disease in Children (CKiD) Study, February 23-25, 2012, March 6, 2013
- 7. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases, Special Review Panel, ZDK1 GRB-7 (O3)S in response to PAR-DK-09-247: Ancillary

Studies to Major Ongoing Clinical Research Studies to Advance Areas of Scientific Interest within the Mission of the NIDDK (R01), July 11, 2012

8. Alberta Innovates Health Solutions Collaborative Research & Innovation Opportunities (CRIO) Grant Review, September, 2012
9. Health Research Board of Ireland, Health Research Awards, 2013
10. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases 2017/01 ZRG1 DKUS-R (55) Study Section 2016

### **Guidelines Reviewer**

1. Kidney Disease Improving Global Outcome (KDIGO) Guidelines Review
  - a. Prevention, Diagnosis, Evaluation and Treatment of Hepatitis C in Chronic Kidney Disease, Published April, 2008
  - b. Diagnosis, Evaluation, Prevention and Treatment of Chronic Kidney Disease related Mineral and Bone Disorders (CKD-MBD), Published August, 2009
  - c. Acute Kidney Injury (AKI), published March, 2012

### **CLINICAL TRIAL AND STUDY RESPONSIBILITIES**

#### **Overall Study Responsibilities: Steering and Executive Committees**

- 1) Study Principal Investigator, Medicine vs Angiography for Thrombolytic Exclusion Patients (M.A.T.E.), 1994-1997, (multicenter, U.S., randomized controlled trial [RCT]). Status: closed.
- 2) Study Principal Investigator, The Resource Utilization Among Congestive Heart Failure Study (R.E.A.C.H.), 1998-2000, (single-center, prospective cohort study). Status: closed.
- 3) Study Principal Investigator, The Asthma, Beta-Agonists, and Congestive Heart Failure Study, (A.B.C.H.F.), 1998-1999, (single-center, case-control study). Status: closed.
- 4) Study Co-Principal Investigator, The Prevention of Radiocontrast Induced Nephropathy Clinical Evaluation (P.R.I.N.C.E.) Study, 1995-1998, (single-center, RCT). Status: closed.
- 5) Study Co-Principal Investigator, BNP Multinational Study, Principal Investigator, Alan Maisel, MD, Biosite Diagnostics, Inc., 2000-2006, (multicenter, international, prospective cohort study). Status: closed.
- 6) Study Co-Investigator, Prophylactic Oral Amiodarone Compared to Placebo for Prevention of Atrial Fibrillation Following Coronary Artery Bypass Graft Surgery (P.A.P.A.C.A.B.G.), 1996-1998, (single-center, RCT). Status: closed.

- 7) Study Co-Investigator, Rapid Early Bedside Markers of Myocardial Injury, 1998-1999, HFHS and Biosite Diagnostics, Inc. (prospective cohort study). Status: closed.
- 8) Member, Steering Committee, Clinical Study Protocol No. 2000-025: A Phase IIIb, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Determine the Safety, Efficacy, and Tolerability of Fenoldopam Mesylate in Subjects Undergoing Interventional Cardiology Procedures (CONTRAST), William W. O'Neill, MD and Gregg Stone, MD, Co-Principal Investigators, Abbott Laboratories, Inc., 2000-2003 (multicenter, US, RCT). Status: closed.
- 9) Chair, National Steering Committee, Kidney Early Evaluation Program (KEEP) NKF, Member 2000-2005, Co-Chair 2005-2010, Chair 2010-present (multicenter, U.S., prospective cohort study). Annual budget ~\$1,325,198 (2009), ~\$1,233,832 (2010), ~\$1,614,953.00 (2011), ~\$989,500 (2012), ~\$1,217,000 (2013). Status: inactive.
- 10) Member, Steering Committee, Protocol No. 704.351 Evaluation of Synergy between Natrecor and Furosemide on Renal and Neurohormone Responses in Chronic Heart Failure: A Phase IV Study, Scios Inc., 2003-2005 (multicenter, U.S., randomized cross-over trial). Status: closed.
- 11) Member, Steering Committee, Protocol No. CCIB002FUS12. A Multicenter, Double-blind, Randomized, Parallel Group Study to Evaluate the Effects of Lotrel and Lotensin HCT on Microalbuminuria in Mild to Moderate Hypertensive Subjects with Type 2 Diabetes Mellitus, Novartis Pharmaceuticals, Inc., 2003-2006. Status: closed.
- 12) Rotating Executive Committee Principal Investigator Member, NIH HF-ACTION Trial (Exercise Training Program to Improve Clinical Outcomes in Individuals With Congestive Heart Failure), HL63747 01A2, 2006-2009. Principal Investigator, David Whellan, MD, status: closed.
- 13) Overall Study Principal Investigator, Neutrophil Gelatinase-Associated Lipocalin: A Novel Blood Marker for Risk of Developing Contrast Induced Nephropathy (ENCINO), multicenter, prospective, blinded cohort study, 2006-2009, status: closed.
- 14) Member, Steering Committee, VA NEPHRON-D: Diabetes iN Nephropathy Study, 2008 to 2013, trial stopped early for safety cardiovascular and acute kidney safety concerns in angiotensin converting enzyme inhibitor plus losartan arm, status: closed.
- 15) Member, External Expert Panel, National Institutes of Health, National Institute of Digestive and Diabetes and Kidney Diseases, Chronic Renal Insufficiency Cohort Study, status open, 2010 to present.
- 16) Member, Optimal Medical Management Subcommittee, National Institutes of Health, National Heart Lung and Blood Institute, International Study of Comparative Health

Effectiveness with Medical and Invasive Approaches (ISCHEMIA), status: open, 2011 to present.

- 17) Member, Steering Committee, National Institutes of Health, National Heart Lung and Blood Institute, International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA) in patients with Chronic Kidney Disease (ISCHEMIA-CKD), status: open, 2012 to present.
- 18) Member, Steering Committee, Thrasos Innovation, Inc, A Phase II Multi-Center, Parallel-Group, Randomized, Double Blind, Proof-of-Concept, Adaptive Study Investigating the Safety and Efficacy of THR-184 Administered via Intravenous Infusion in Patients at Increased Risk of Developing Cardiac Surgery Associated-Acute Kidney Injury (CSA-AKI), status: closed, 2012 to 2015.
- 19) Overall Principal Investigator, AbbVie, Inc, Clinical Study Protocol M13-796, A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and Efficacy Trial of Multiple Dosing Regimens of ABT-719 for the Prevention of Acute Kidney Injury in Subjects Undergoing High Risk Cardiac Surgery, status: closed, 2013 to 2014.
- 20) Overall Principal Investigator, Bioporto, Inc, The NGAL Test™ As An Aid in the risk assessment for AKI stage II and III in an Intensive Care Population, status: open 2017 to present.
- 21) Member, Global Expert Panel, Novo Nordisk, Inc, A Research Study to See How Semaglutide Works Compared to Placebo in People With Type 2 Diabetes and Chronic Kidney Disease (FLOW), status: open.

#### **Overall Study Responsibilities: Endpoint Committees**

- 1) Member, Critical Endpoints Committee, Treat Angina with Aggrastat and Determine Cost of Therapy with an Invasive or Conservative Strategy, TACTICS-TIMI 18 (Protocol 019-00), 1998-2000, (multicenter, international, RCT). Status: closed
- 2) Member, Study Endpoints Committee, A Phase II, Escalation Trial of Vasoflux™ in Patients Undergoing Thrombolysis with Streptokinase for Acute Myocardial Infarction, Protocol CLN-P-V18-07001, Parexel International Corporation, 1998, (multicenter, international, RCT). Status: closed
- 3) Member, Safety Endpoint Evaluation Committee, A Phase III, Single-Blind Controlled Study to Evaluate the Clinical Effects of a Hemoglobin-based Oxygen Carrier (HBOC-210) Given as a Transfusion Alternative in Patients Undergoing Orthopedic Surgery. (Protocol HEM-0115), Biopure Corporation with Quintiles, Inc., Clinical Event and Adjudication Services, 2000-2001. (multicenter, international, RCT). Status: closed

- 4) Member, Critical Endpoints Committee, Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (multicenter, international, RCT). Status: study terminated early due to drug withdrawal from market
- 5) Member, Clinical Events Classification Committee, Correction of Hemoglobin and Outcomes in Renal Insufficiency (CHOIR), Ajay Singh, MD, Donal Reddan, MBBS, Principal Investigators, Ortho Biotech Inc., 2001-2004 (multicenter, international, RCT). Status: closed
- 6) Member, Critical Endpoint Committee, A Randomised, Double-blind, Parallel Group, Phase 3, Efficacy and Safety Study of AZD6140 (Ticagrelor) Compared with Clopidogrel for Prevention of Vascular Events in Patients with Non-ST or ST Elevation Acute Coronary Syndromes (ACS) [PLATO – A Study of PLATelet inhibition and Patient Outcomes.], AstraZeneca, Inc., Duke Clinical Research Institute, 2008, status: closed
- 7) Chair, Clinical Endpoints Committee, Alere San Diego, Inc, Alere Prospective Blinded Study of a Novel Troponin Assay (PEARL), status: closed 2015
- 8) Chair, Adjudication Committee, Myeloperoxidase In the Diagnosis of Acute coronary Syndromes (MIDAS) study, Alere, Inc., status: closed 2012
- 9) Independent Endpoint Adjudicator, BioPorto Diagnostics, The NGAL test as an aid for the Diagnosis of AKI in an Intensive Care Population, Code of the Study: KLIN 12-005, status closed, 2015
- 10) Independent Endpoint Adjudicator, Ischemix, Inc., Safety and Efficacy of CMX-2043 for Protection of the Heart and Kidneys in Subjects Undergoing Coronary Angiography (CARIN), status: closed 2016
- 11) Chair, Data Adjudication Committee, Estimating versus Measuring Plasma Volume and Kidney Function in Acute Decompensated Congestive Heart Failure, Eudra-CT Number 2018-002638-18, Sponsor: Charite-Universitätsmedizin Berlin, FAST Biomedical, Inc, 2018-present

#### **Overall Study Responsibilities: Data Safety Monitoring Committees**

- 1) Member, External Advisory Committee/Data Safety Monitoring Board, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Polycystic Kidney Disease (PKD) Clinical Trials Network HALT-PKD Trial, Robert Schrier, MD, Principal Investigator, Committee Chair: William Henrich, MD, 2004-2008, Data Safety Monitoring Board, status: closed 2014
- 2) Chairman, Data Safety Monitoring Committee, Clinical Trials Program CS0011-A-U301, Daiichi Sankyo Pharma Development (DSPD) CS-011, Seven Core Trials of Rivoglitazone in Type 2 Diabetes: 1) A 26-week placebo-controlled trial of 1.0 and 1.5 mg rivoglitazone vs.

45 mg pioglitazone, as monotherapy in type 2 diabetics (CS0011-A-U301); 2) A 26-week placebo-controlled trial of 0.5, 1.0 and 1.5 mg rivoglitazone vs. 15, 30 and 45 mg pioglitazone, as monotherapy in type 2 diabetics (CS0011-A-U302); 3) A 26-week placebo-controlled trial of 1.0 and 1.5 mg rivoglitazone vs. 45 mg pioglitazone, in type 2 diabetics on metformin therapy, followed by a 26-week pioglitazone-controlled continuation period (CS0011-A-U303); 4) A 26-week placebo-controlled trial of 0.5 and 1.0 mg rivoglitazone vs. 30 mg pioglitazone, in type 2 diabetics on sulfonylureas therapy, followed by a 26-week pioglitazone-controlled continuation period (CS0011-A-U304); 5) A 26-week placebo-controlled trial of 0.5 and 1.0 mg rivoglitazone vs. 15 mg pioglitazone in type 2 diabetics on insulin therapy (CS0011-A-U305); 6) A long-term (12-24 months) randomized, general efficacy and safety study of rivoglitazone vs. pioglitazone, as monotherapy or add-on therapy, in type 2 diabetics (CS0011-A-U306); 7) A 26-week placebo-controlled trial of rivoglitazone and metformin, in type 2 diabetics (CS0011-A-U307), USFDA Special Protocol Assessment Agreement granted, status: closed, 2009 trials program terminated

- 3) Member, Data Safety Monitoring Committee, A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate Cardiovascular Outcomes Following Treatment with Alogliptin in Addition to Standard of Care in Subjects with Type 2 Diabetes and Acute Coronary Syndrome SYR322\_402, EXAMINE Trial Takeda Global Research and Development Center, Inc. (US) Takeda Global Research and Development Centre, Ltd. (Europe), status: 2009 trial stopped early for non-inferiority but futility on superiority outcome
- 4) Chair, Data Safety Monitoring Committee, Protocol D9120C00019, A randomised, double-blind, placebo controlled, multi-centre phase IIb dose finding study to assess the effect on GERD symptoms, safety and tolerability during four weeks treatment with AZD3355 in doses 60 mg, 120 mg, 180 mg and 240 mg bid as add-on treatment to a PPI in patients with GERD that are partial responders to PPI treatment, AstraZeneca, status: closed 2009, trials program terminated for safety
- 5) Member, Data Safety Monitoring Committee, Protocols: AMAG-FER-IDA-301, A Phase III, Randomized, Double-Blind, Placebo-Controlled Trial of Ferumoxytol for the Treatment of Iron Deficiency Anemia, Protocol: AMAG-FER-IDA-302, A Phase III, Randomized, Open-Label, Active Controlled Trial Comparing Ferumoxytol with Iron Sucrose for the Treatment of Iron Deficiency Anemia, Protocol: AMAG-FER-IDA-303, A Phase III, Open-Label Extension, Trial of the Safety and Efficacy of Ferumoxytol for the Episodic Treatment of Iron Deficiency Anemia, AMAG Pharmaceuticals, Inc., status: closed 2010, trial completed in 2013 without safety concerns
- 6) Chair, Independent Data Monitoring Committee, Protocol 402-C-0903 Bardoxolone Methyl Evaluation in Patients with Chronic Kidney Disease and Type 2 Diabetes: the Occurrence of Renal Events (BEACON), Reata Pharmaceuticals, Inc., status: trial stopped in 2012 early for cardiovascular and mortality safety concerns

- 7) Member, Independent Safety Council, Affymax Inc and Takeda Pharmaceutical Co., Omontys (peginesatide), status: closed, post-marketing surveillance led to voluntary drug withdrawal from market in 2013 for serious and fatal allergic reactions
- 8) Chair, Independent Data Monitoring Committee, AbbVie, Inc, Clinical Study Protocol M11-352 A Randomized, Multicountry, Multicenter, Double Blind, Parallel, Placebo-Controlled Study of the Effects of Atrasentan on Renal Outcomes in Subjects with Type 2 Diabetes and Nephropathy SONAR: Study Of Diabetic Nephropathy with Atrasentan, status closed 2018
- 9) Chair, Independent Data Monitoring Committee, AbbVie, Inc., Clinical Study Protocol M13-958 A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and Efficacy Trial of Multiple Dosing Regimens of ABT-719 for the Prevention of Acute Kidney Injury in Subjects Undergoing High Risk Major Surgery, status: closed 2015
- 10) Member, Data Monitoring Committee, Akebia Therapeutics, Inc., AKB-6548-CI-0007, Phase 2b Randomized, Double-Blind, Placebo-Controlled Study to Assess the Pharmacodynamic Response, Safety, and Tolerability to 20 Weeks of Oral Dosing of AKB-6548 in Subjects with Anemia Secondary to Chronic Kidney Disease (CKD), GFR Categories G3a-G5 (Stages 3, 4, and 5) (Pre-Dialysis), status: closed 2015
- 11) Member, Study Monitoring Team, Akebia Therapeutics, Inc., AKB-6548-CI-0011, Phase 2a Open-Label Study to Assess the Efficacy, Safety, and Tolerability of AKB-6548 in Subjects with Anemia Secondary to End Stage Renal Disease (ESRD), Undergoing Chronic Hemodialysis, status: closed 2016
- 12) Member, Data Monitoring Committee, Merck, Inc., Pfizer, Inc, Clinical Trials Program, Ertugliflozin (MK-8835/PF-04971729) Phase 2 and Phase 3 Development Program, status closed, 2012 to 2020
- 13) Member, Steering Committee, Medtronic, Inc., Monitoring in Dialysis, status: closed 2016
- 14) Member, Data Safety and Monitoring Board, St. Jude Medical, EnlighTN IV Multi-center, randomized, single-blind, sham controlled clinical investigation of renal denervation for uncontrolled hypertension, status: 2013 trial terminated before recruitment started
- 15) Chair, Data Safety Monitoring Board, Neumedicines, Inc., A Phase 2, Single-Dose, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of HemaMax™ (rHuIL-12) in Healthy Subjects, status: closed 2016
- 16) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2 Study of the Safety, Efficacy, and Pharmacodynamics of RTA 408 in the Treatment of Friedreich's Ataxia, 2014 to 2019, status: closed



- 17) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2 Study of the Safety, Efficacy, and Pharmacodynamics of RTA 408 in the Treatment of Mitochondrial Myopathy, 2015 to 2019, status: closed
- 18) Member, Patient Safety Review Committee, Reata Pharmaceuticals, Inc., A dose-ranging study of the efficacy and safety of Bardoxolone Methyl in patients with pulmonary arterial hypertension (402-C-1302), 2014 to 2018, status: closed
- 19) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Study of the Efficacy and Safety of Bardoxolone Methyl in Patients with Connective Tissue Disease-Associated Pulmonary Arterial Hypertension (CATALYST), 2016 to present, status: closed
- 20) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2/3 of Efficacy and Safety of Bardoxolone Methyl in Patients with Alport Syndrome (CARDINAL), 2017 to present, status: closed
- 21) Chair, Data Safety Monitoring Board, Sanfit, Inc., A double-blind, randomised, placebo-controlled study to assess the effect of SNF472 on progression of cardiovascular calcification on top of standard of care in end-stage-renal-disease (ESRD) patients on haemodialysis (HD) SNFCT2015-05, 2017 to 2019, status: closed
- 22) Chair, Data Monitoring Committee, Renew Research, KAI Research, A Randomized Pivotal Study of Renew™ NCP-5 for the Treatment of Mild Cognitive Impairment due to Alzheimer's Disease or Mild Dementia of the Alzheimer's Type, 2018 to present, status: closed
- 23) Chair, Data Safety Monitoring Committee, Sanofi, Inc., Multicenter, randomized, double-blind, placebo-controlled two stage study to characterize the efficacy, safety, tolerability and pharmacokinetics of GZ/SAR402671 in patients at risk of rapidly progressive Autosomal Dominant Polycystic Kidney Disease (ADPKD) STUDY NUMBER: EFC15392 STUDY NAME: SAVE-PKD COMPOUND: GZ/SAR402671, 2018 to present, status: open
- 24) Chair, Data Safety Monitoring Board, National Institutes of Health, National Heart, Lung and Blood Institute R34 NHLBI Clinical Trial Pilot Studies (R34) Reducing Arrhythmia in Dialysis by Adjusting the Rx Electrolytes/Ultrafiltration (RADAR), David Charytan, MD, PI, 2019 to present, status: open
- 25) Chair, Data Safety Monitoring Board, GZ402671 EFC15392 Multicenter, randomized, double-blind, placebo-controlled two stage study to characterize the efficacy, safety, tolerability and pharmacokinetics of GZ/SAR402671 in patients at risk of rapidly progressive Autosomal Dominant Polycystic Kidney Disease (ADPKD), Sanofi, status: open
- 26) Chair, Data Safety Monitoring Board, MEDI3506, Trials Portfolio, D9182C00001 A Phase 2 Randomized, Double-blinded, Placebo-controlled Study to Evaluate the Efficacy and Safety

of MEDI3506 in Adult Subjects with Moderate-to-severe Atopic Dermatitis; D9181C00001 A Phase II, Randomised, Double-blind, Placebo-controlled Study to Assess the Efficacy and Safety of MEDI3506 in Adult Participants with Uncontrolled Moderate-to-severe Asthma; D9180C00002 A Phase II, Randomized, Double-blind, Placebo-controlled Study to Assess the Efficacy, Safety and Tolerability of MEDI3506 in Participants with Moderate to Severe Chronic Obstructive Pulmonary Disease and Chronic Bronchitis (FRONTIER 4); D9183C00001 A Phase 2b Randomized, Double-blind, Placebo-controlled, Study to Evaluate the Efficacy and Safety of MEDI3506 in Subjects with Diabetic Kidney Disease, Axio Inc, A Cytel Company, status: open

## GRANT AWARDS

### Original Research Grants

- G1) London JF (PI), Bis KG, Juni JE, Wilke N, DiCarli MF, Shetty AN, **McCullough PA**, Timmis GC. Magnetic Resonance vs. Positron Emission Tomography for the Detection of Myocardial Viability. Bracco Diagnostics Inc./SCA&I Grant, \$25,000 (WBH RC-453), 1997-98. Additional WBH Research Institute Mini-grant, \$5,000 (WBH Grant #RC-748). Level of involvement: author of the variable definitions, endpoints, and data analysis sections, 0% FTE. Status: closed 1998
- G2) **McCullough PA** (PI), Shah S, Noor H, Marks KR, McCabe KB, Zong L, McCord J, Khoury N, Ulcickas-Yood M, Ward RE. Diagnostic Accuracy of an Emergency Department Clinical Decision Unit in the Evaluation of Chest Pain. HFHS Small Projects Fund \$10,000 (HFHS Grant #A30785), 0% FTE. Status: closed 1997
- G3) Keteyian SJ (Co-PI), **McCullough PA** (Co-PI), Brawner CA, Rosman HS, Stein P, Weaver WD. A Prospective Study of Case Identification and Triage of Patients Eligible for Cardiac Rehabilitation. Merck & Co., U.S. Human Health, \$30,000 (HFHS Grant #E18037), 3% FTE. Status: closed 1998
- G4) **McCullough PA**. Novel Methods for Identifying High-Risk Patients for Subsequent Cardiovascular Events. Merck & Co., U.S. Human Health, \$20,000 (HFHS Grant #M1060), 0% FTE. Status: closed 1998
- G5) **McCullough PA**. Cardiovascular Informatics Development Award. Pfizer, Inc., \$10,000 (HFHS Grant #E60022), 0% FTE. Status: closed 1998
- G6) **McCullough PA**, Yee J, Soman S, Sallach J, Borzak S, Foreback C, Monaghan K, Tisdale JE, Bailey E, Bola P, Chase G, Marks KR, Weaver WD. A Prospective Dose-Ranging Trial of Folic Acid to Reduce Total Homocyst(e)ine Levels in Patients with End-Stage Renal Disease Undergoing Hemodialysis. HFHS Project Development Fund \$10,000 (HFHS Grant #A20003), 0% FTE. Status: closed 1999

- G7) **McCullough PA**. NuStep Recumbent Cross Trainer Product Development Pilot Study, NuStep, Inc., (single center, prospective pilot study), \$12,500.00, (WBH Grant #RC- 08-94847). Status: closed 2005
- G8) **McCullough PA**, Secondary Analyses from the PRINCE Trial, (single center data analysis), \$20,000, PLC Medical, Inc., (WBH #RC 08-94851) Status: closed 2005
- G9) **McCullough PA**, Sullivan RA. A Systematic Review of Vascular Calcification in Patients with Chronic Kidney Disease and End-Stage Renal Disease, 2002-2003, Braintree Labs, Inc., \$40,000, 25% FTE (WBH Grant #RC 08-94833) Status: closed 2003
- G10) Pasas SA, Davies MI, **McCullough PA**. Determination of Protein-bound Homocysteine in Human Plasma using Capillary Electrophoresis with Electrochemical Detection in Patients with Chronic Kidney Disease, 2003-2004, AHA Predoctoral Fellowship Program (Pasas), \$38,000, 15% FTE (UMKC Grant #). Status: closed 2003
- G11) Collins AC, Gladstone E, Robitscher JW, **McCullough PA**, Klag M, Narva A, Gilberston D for the NKF. Demonstration project: state-based screening for chronic kidney disease. Response to CDC-RFA-DP06-004, demonstration project for identifying individuals at high-risk for CKD in the US. Centers for Disease Control, \$1,199,609, 12% FTE Status: closed 2007
- G12) **McCullough PA**, Principal Investigator. Neutrophil Gelatinase-Associated Lipocalin (NGAL): A Novel Blood Marker for Risk of Developing Contrast-Induced Nephropathy (ENCINO). Biosite/Inovise, Inc., \$229,000.00 (WBH #RC-94862), 0% FTE Status: closed 2009
- G13) Agrawal V, Barnes M, **McCullough PA**. Evaluation of CKD awareness in medical residents. WBH intramural mini-grant R/C# 98662, \$10,000.00, 0% FTE Status: closed 2008
- G14) **McCullough PA**, overall Principal Investigator transferred to Zalesin K. FDA Investigational New Drug Exemption (INDE) #060672. A Prospective, Randomized, Placebo-Controlled, Parallel-Group, Pilot Trial of Paricalcitol in the Treatment of Hyperparathyroidism in Patients after Roux-en-Y Gastric Bypass Surgery with Chronic Kidney Disease, Abbott Laboratories, Inc., \$496,600.00 (WBH #RC-90290), 0% FTE Status: closed 2009
- G15) **McCullough PA**, overall Principal Investigator transferred to Miller WM, FDA INDE #107750. Investigator Initiated Study. A Prospective, Double-Blind, Randomized, Parallel Group, Placebo-Controlled Trial of Aliskiren versus Placebo in Non-Diabetic, Normotensive Obese Patients with Microalbuminuria, Novartis, Inc., \$339,400.00 (WBH #RC-90345), Status: closed 2010

- G16) **McCullough PA**, overall Principal Investigator. Investigator Initiated Study, FDA Investigational New Drug (IND) #74707. A Phase 2, randomized, double-blind, placebo-controlled trial, to assess the efficacy and safety of deferiprone in the reduction of markers of contrast-induced acute oxidative kidney injury. Cormedix, Inc, \$857,745 (includes \$101,442 for Beaumont Research Coordinating Center). Study centers included Providence Hospital and Medical Center Southfield, St. John Hospital and Medical Center, Detroit, Northern Michigan Hospitals, Petoskey, MI, St. Vincent's Hospital, Indianapolis, IN, Fairfield Cardiac Cath Labs, LLC, Fairfield, OH, Oklahoma Heart Hospital, Oklahoma City, OK, Ohio Health Research Institute, Columbus, OH, Mercy St. Vincent Hospital, Toledo, OH, Status: closed 2011
- G17) **McCullough PA**, overall study Principal Investigator, A Prospective Randomized Parallel-Group Controlled Trial of Multiple Blood Biomarkers in the Personalized Management of Chronic Heart Failure, Baylor IRB 014-252, Baylor Foundation, 2014, \$78,639.20, status: closed 2016.
- G18) **McCullough PA**, overall study Principal Investigator, Baylor Hypertrophic Cardiomyopathy Program Development Project: Time-resolved, 3D phase contrast magnetic resonance imaging (MRI) (4D Flow) and Advanced Strain Rate Echocardiography in Patients with Hypertrophic Cardiomyopathy, Baylor IRB 014-175, Baylor Foundation, 2014, \$100,000.00, status: open
- G19) **McCullough PA**, overall study Principal Investigator, Preventive Cardiology Registry: Role of Proprotein Convertase Subtilisin/kexin type 9 (PCSK9) and Other Catabolic Determinants in Hypercholesterolemia in Patients with Suspected Heterozygous Familial Hypercholesterolemia Baylor IRB 014-122, Baylor Foundation, \$3,100.00, status: closed 2014
- G20) **McCullough PA**, overall study Principal Investigator and Study Chairman, Investigator Initiated Trial, "A Prospective, Double-blind, Placebo Controlled, Parallel Group, Randomized Trial of Extended Release Exenatide versus Placebo in Diabetic Patients with Type 4 Cardiorenal Syndrome: EXTEND-CRS", D5551L00004/ISSEXEN0013, FDA IND 123200, Baylor IRB 014-149, AstraZeneca, 2014, \$1,597,901.93, status: open
- G21) **McCullough PA**, overall study Principal Investigator, Iso-osmolar Contrast and the Timing of Coronary Angiography in the Multivariate Risk for Cardiac Surgery Associated with Acute Kidney Injury and Major Adverse Renal and Cardiac Events (MARCE), Baylor IRB 014-096, GE Healthcare, Inc, 2015, \$145,885.00, status open
- G22) **McCullough PA**, overall study Principal Investigator, Timing of coronary angiography and multivariate risk for cardiac surgery associated acute kidney injury and major adverse renal and cardiac events (MARCE), Baylor IRB 014-096, Baylor Foundation, \$8,100.00, status: closed 2016

- G23) Mendez J, **McCullough PA**, et al, co-investigator, Assessment of Multiple Blood Biomarkers in Patients with Advanced Heart Failure Undergoing Evaluation for Cardiac Transplantation and Mechanical Circulatory Support, Baylor IRB 014-300, Critical Diagnostics, Inc, \$10,400.00, status: closed 2016
- G24) Bottiglieri, T, **McCullough PA**, et al, co-investigator, Urinary 11dhTxB2 response to acetylsalicylic acid (aspirin) in cardiovascular disease progression and adverse outcomes, Baylor IRB 008-230, Corgenix, Inc., \$99,087.00, status: closed 2016
- G25) Schussler JM, Vasudevan A, **McCullough PA**, co-investigator, Clinical outcomes and metabolomic and damage associated molecular patterns of acute kidney injury in patients undergoing percutaneous coronary intervention via the radial versus femoral artery approach, Baylor IRB 014-299, Baylor Health Care System Foundation, \$61,416.00, status: closed 2018
- G26) Tecson K, **McCullough PA**, coinvestigator, Contribution of Chronic Kidney Disease and Acute Kidney Injury to Heart Failure Outcomes, Baylor IRB 015-296, Baylor Health Care System Foundation, \$43,424.60, status: open
- G27) Vasudevan A, **McCullough PA**, coinvestigator, Burden of Cardiovascular Events Follow Percutaneous Coronary Intervention, Baylor IRB 015-297, Baylor Health Care System Foundation, \$40,000.00, status: closed 2018
- G28) Tecson, K, **McCullough PA**, Therapeutic Intensity of Lipid Lowering Therapy in Response to Recurrent Cardiovascular Events, Baylor IRB 017-106, Amgen, Inc., \$249,990.00 status: open
- G29) **McCullough PA**, Principal Investigator, A Case Finding Study of Familial Chylomicronemia, Akcea Pharmaceuticals, \$10,000.00, status: closed 2017
- G30) **McCullough PA**, Bottiglieri T, Tecson K. Baylor Foundation \$49,923.80. Identifying metabolomic profiles among genetically confirmed familial hypercholesterolemia, dyslipidemia without familial hypercholesterolemia, and healthy controls, status start-up 2019

#### Site Principal Investigator Contracts

- G1)Jafri S, **McCullough PA**, and the WATCH Investigators. Warfarin and Antiplatelet Therapy in Chronic Heart Failure, (W.A.T.C.H.) Field Center, Veterans Administration Cooperative Studies Program and Sanofi Pharmaceuticals, \$36,000.00 (HFHS Grant #B51008) status: closed 2000
- G2)Jafri S, **McCullough PA**, and the CHARM Investigators. Candesartan Cilexetil (Candesartan) in Heart Failure Assessment of Reduction in Mortality and Morbidity (C.H.A.R.M.) Field

Center, 1999-2000, Astra Pharmaceuticals, \$56,000.00 (HFHS Grant #E09045) status: closed 2000

- G3) Schuger C, **McCullough PA**, and the MADIT Investigators. Multicenter Automatic Defibrillator Implantation Trial II (M.A.D.I.T.-II), Guidant Corporation/Cardiac Pacemakers (CPI), \$96,000 (HFHS Grant #G10087) status: closed 2000
- G4) Schuger C, **McCullough PA**, and the MIRACLE Investigators. Multicenter InSync Randomized Clinical Evaluation (M.I.R.A.C.L.E.), Medtronic Inc., \$195,000, (HFHS Grant #G12006) status: closed 2000
- G5) **McCullough PA**, Shetty A, Soman S and the CHORUS Investigators. Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (RCT), Clinical Site Contract, Bayer Pharmaceuticals, \$266,875.00 10% FTE (HFHS Grant #E05046) status: closed 2000
- G6) **McCullough PA**, Manley HJ and the CHORUS Investigators. Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (RCT), Clinical Site Contract, Bayer Pharmaceuticals, \$279,000 10% FTE (UMKC Grant #E05046) status: closed 2001
- G7) Nowak R, McCord J, **McCullough PA** and the BNP Investigators. Breathing Not Properly Study (B.N.P. Multinational Study), Alan Maisel, MD, and Peter A. McCullough, MD, MPH, Co-Principal Investigators, Biosite Diagnostics, Inc., (prospective cohort study) Field Center Contract, Biosite Diagnostics, Inc., \$180,000.00 (HFHS Site), \$500,000.00, 0% FTE (HFHS Grant #E03005) status: closed 2001
- G8) Ehrman JK, **McCullough PA**. A Prospective Randomized Trial of a Personal Health Assistant in the Secondary Prevention of Heart Disease. Merck, Inc., \$220,961.00, 7% FTE (HFHS Grant #E41010) status: closed 2002
- G9) **McCullough PA** and the CORC Investigators. Kansas City Cardiomyopathy Questionnaire Interpretability Study, John A. Spertus, MD, MPH, Principal Investigator, Cardiovascular Outcomes Research Consortium (C.O.R.C.), 2001 (multicenter, U.S., prospective cohort study), \$21,400.00, status: closed 2002
- G10) **McCullough PA**, Rutherford BD, and the OAT Investigators. Occluded Artery Trial, Judith Hochman, MD, and Gervasio Lamas, MD, Co-Principal Investigators, National Institutes of Health, National Heart Lung and Blood Institute, \$54,000.00. 0% FTE (UMKC Grant #K531122) status: closed 2002

- G11) **McCullough PA** site Principal Investigator and National Executive Committee Member. Rapid Emergency Department Heart Failure Outpatient Trial, Biosite Diagnostics, \$21,000. 0% FTE (UMKC Grant #K531130) status: closed 2002
- G12) **McCullough PA** site Principal Investigator. African-American Heart Failure Trial (AHEFT). A Placebo-Controlled Trial of BiDil added to Standard Therapy in African American Patients with Heart Failure, NitroMed, Inc., \$20,000.00 (UMKC Proposal #9722, TMC Grant #261231) status: closed 2002
- G13) **McCullough PA** and the IMAGING Investigators for Cardiology Clinical Studies, LLC. Investigation of Myocardial Gated SPECT Imaging as Initial Strategy in Heart Failure: The IMAGING in Heart Failure Trial, Dupont Pharmaceuticals Inc., \$20,000.00 (UMKC Proposal #9825, UMKC Grant #KG001278) status: closed 2002
- G14) **McCullough PA**, site Principal Investigator, and Ad Hoc Executive Committee Member. Heart Failure and a Controlled Trial Investigating Outcomes of Exercise Training. National Institutes of Health, National Heart, Lung, and Blood Institute, subcontracted through the Duke Clinical Research Institute, \$665,000, (NIH Grant #1 U01 HL63747 01A2, WBH Grant # RC 08-94837, Site #301) status: closed 2005
- G15) **McCullough PA**, site Principal Investigator, and Executive Committee Member. Protocol No. 704.351 Evaluation of Synergy between Natrekor and Furosemide on Renal and Neurohormone Responses in Chronic Heart Failure: A Phase IV Study, Scios Inc., 2003 (multicenter, U.S., randomized cross-over trial), \$105,447.50, (WBH Grant # RC 08-94836) status: closed 2005
- G16) **McCullough PA**, site Principal Investigator and National Co-Principal Investigator. Protocol No. CCIB002FUS12. A Multicenter, Double-blind, Randomized, Parallel Group Study to Evaluate the Effects of Lotrel and Lotensin HCT on Microalbuminuria in Mild to Moderate Hypertensive Subjects with Type 2 Diabetes Mellitus, Novartis Inc., (multicenter, U.S., randomized trial), \$63,649.90, (WBH Grant #RC 08-94838) status: closed 2006
- G17) **McCullough PA**, and the ACCOMPLISH Investigators. Protocol No. CCIB002.12301. Avoiding Cardiovascular Events through Combination Therapy in Patients Living with Systolic Hypertension, Novartis, Inc., 2003 (multicenter, multinational, randomized trial) \$159,241.00, (WBH Grant #RC 08-94844) status: closed 2006
- G18) **McCullough PA**, site Principal Investigator. Efficacy of Vasopressin Antagonism in Heart Failure: Outcome Study with Tolvaptan, Protocol #156-03-236, IND #50,533, Otsuka Maryland Research Institute, (multicenter, international, randomized trial), \$210,750.00, (WBH Grant #RC 08-94842 changed to #RC 08-94849) status: closed 2005
- G19) **McCullough PA**, site Principal Investigator. A Multicenter, Double-Blind, Randomized, Parallel Group, 6-week Study to Evaluate the Efficacy and Safety of

Ezetimibe/Simvastatin Combination versus Atorvastatin in Patients with Hypercholesterolemia, Protocol #051/EZT544, Merck, Inc., (multicenter, U.S., randomized trial), \$18,840.00, (WBH Grant #RC 08-94843) status: closed 2006

- G20) **McCullough PA**, site Principal Investigator, A multicenter, double-blind randomized, parallel-group study to compare the effect of 24 weeks treatment with LAF237 (50 mg qd or bid) to placebo as add-on therapy in patients with type 2 diabetes inadequately controlled with metformin monotherapy. Novartis Pharmaceuticals, Inc., (multicenter, U.S., randomized trial), \$30,700.00, (WBH Grant #RC 08-94845) status: closed 2007
- G21) **McCullough PA**, site Principal Investigator. A multicenter, double-blind randomized, parallel-group study to compare the effect of 24 weeks treatment with LAF237 (50 mg qd or bid) to placebo as add-on therapy to pioglitazone 45 mg qd in patients with type 2 diabetes inadequately controlled with thiazolidinediones monotherapy. Novartis Pharmaceuticals, Inc., (multicenter, U.S., phase III randomized trial) \$30,700.00, (WBH Grant #RC 08-94846) status: closed 2006
- G22) **McCullough PA**, site Principal Investigator. An 8-week, randomized, double-blind, parallel group, multicenter placebo and active controlled disease escalation study to evaluate the safety and efficacy of aliskiren in patients with hypertension, \$47,100.00 (WBH #RC 08- 94852) status: closed 2007
- G23) **McCullough PA**, site Principal Investigator. A randomized, double-blind study to compare the durability of glucose lowering and preservation of pancreatic beta-cell function of rosiglitazone monotherapy compared to metformin or glyburide/glibenclamide in patients with drug naïve, recently diagnosed type 2 diabetes, \$140,100.00, Novartis Pharmaceuticals (WBH #RC 08-94849) status: closed 2008
- G24) **McCullough PA**, site Principal Investigator. A multicenter, randomized, double-blind factorial study of the co-administration of MK-0431 and metformin in patients with type 2 diabetes who have inadequate glycemic control, \$36,735.00, Merck Research Laboratories (WBH #RC 08-94853) status: closed 2008
- G25) **McCullough PA**, site Principal Investigator. Multicenter, Randomized, Double-Blind Study to Evaluate the Efficacy & Safety of Ezetimibe/Simvastatin and Niacin Co-Administered in Patients with type IIa or Type IIb Hyperlipidemia, \$46,960.00, Merck Research Laboratories, MRK-091, (WBH #RC 08-94854) status: closed 2008
- G26) **McCullough PA**, site Principal Investigator. A Multi-Center, Randomized, Double-Blind, factorial Design study to evaluate the lipid-altering efficacy & safety of MK-0524B Combination Tablet in Patients with Primary Hypercholesterolemia or Mixed Hyperlipidemia \$40,849.00, Merck Research Laboratories, MRK-022. (WBH #RC 08-94855) status: closed 2007



- G27) **McCullough PA**, site investigator. An 8-week, multicenter, randomized, double-blind, parallel-group study to evaluate the efficacy and safety of the combination of valsartan/HCTZ/amlodipine compared to valsartan/HCTZ, valsartan/amlodipine, and HCTZ/amlodipine in patients with moderate to severe hypertension, \$43,500.00, Novartis Pharmaceuticals (WBH #RC 08-94857) status: closed 2007
- G28) **McCullough PA**, site Principal Investigator. A multicenter randomized, double-blind parallel arm, 6-week study to evaluate the efficacy and safety of ezetimibe/simvastatin versus atorvastatin in patients with metabolic syndrome and hypercholesterolemia at high risk for coronary heart disease, \$32,010.00. Merck Research Laboratories (WBH #RC 08-94861) status: closed 2008
- G29) **McCullough PA**, site Principal Investigator. A multicenter, randomized, double-blind study to evaluate the safety and efficacy of the initial therapy with coadministration of sitagliptin and pioglitazone in patients with type 2 diabetes mellitus, \$24,036.00, Merck Research Laboratories, MRK-064 (WBH #RC 08-94860) status: closed 2008
- G30) Dixon, SD, site PI, **McCullough PA**, Multinational Executive Committee. RENAL GUARD Pilot Trial. PLC Medical Systems, \$37,610.00 (WBH #RC- 90771) status: closed 2008
- G31) **McCullough, PA**, site Principal Investigator, A multi-center, randomized, double-blind, placebo and active controlled, parallel group, dose range study to evaluate the efficacy and safety of LCZ696 comparatively to valsartan, and to evaluate AHU377 to placebo after 8-week treatment in patients with essential hypertension. Novartis, Inc., \$31,965.28. (WBH #RC-94863) status: closed 2008
- G32) **McCullough PA**, site Principal Investigator. Paricalcitol capsules benefits in renal failure induced cardiac morbidity in subjects with chronic kidney disease stage 3b/4, (PRIMO Abbott Laboratories, ABT-M-10-030, \$157,992.00, (WBH #RC-94864) status: closed 2008
- G33) **McCullough PA**, site Principal Investigator. A randomized, double-blind, parallel group study to evaluate the effects of high-dose statin therapy on fluorodeoxyglucose (FDG) uptake in arteries of patients with atherosclerotic vascular disease. Merck Research Laboratories, MRK-081, \$86,994.00 (WBH #RC 08-90223) status: closed 2008
- G34) **McCullough PA**, site Principal Investigator. Patient registry for the Liposorber LA-15 system. Kaneka, Inc., \$7,515.00, (WBH #RC-90877) status: closed 2009
- G35) **McCullough PA**, site Principal Investigator. A 30-week multicenter, randomized, double-blind. Parallel-group study of the combination of ABT-335 and Rosuvastatin compared to rosuvastatin monotherapy in dyslipidemic subjects with stage 3 chronic kidney disease, Abbott M10-313, \$128,544.00, (WBH #RC-90212) status: closed 2009

- G36) **McCullough PA**, site Principal Investigator. A multicenter, randomized open label, active-comparator controlled study to assess the efficacy, safety, and tolerability of taspoglutide compared to exenatide in patients with type 2 diabetes mellitus inadequately controlled with metformin, thiazolidinedione, or a combination of both, Roche BC 21625, \$72,012.50, (WBC #RC-90245) status: closed 2010
- G37) **McCullough PA**, site Principal Investigator. A multicenter, randomized double-blind, placebo-controlled study to assess the efficacy, safety, and tolerability of taspoglutide compared to placebo in obese patients with type 2 diabetes mellitus inadequately controlled with metformin monotherapy, Roche BC 22092, \$38,387.50, (WBH #RC-90258) status: closed 2009
- G38) **McCullough PA**, site Principal Investigator. A safety and efficacy trial evaluating the use of apixaban for the extended treatment of deep vein thrombosis and pulmonary embolism, Bristol Myers Squibb-Pfizer CV185057, \$173,750.00, (WBH #RC-90288) status: closed 2009
- G39) **McCullough PA**, site Principal Investigator. A phase 3, active (warfarin) controlled, randomized, double-blind, parallel arm study to evaluate efficacy and safety of apixaban in preventing stroke and systemic embolism in subjects with nonvalvular atrial fibrillation, Bristol Myers Squibb-Pfizer CV1805030, \$173,750.00, (WBH #RC-90275) status: 2009
- G40) **McCullough PA**, site Principal Investigator. Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist Trial (TOPCAT), National Institutes of Health, National Heart, Lung, and Blood Institute, subcontracted through the New England Research Institutes, Inc., \$86,250.00, (WBH #RC-90267) status: closed 2010
- G41) **McCullough PA**, site Principal Investigator. An 8-week, randomized, double-blind, parallel group, multicenter, forced titration study to evaluate the efficacy and safety of aliskiren plus HCTZ versus aliskiren monotherapy in metabolic syndrome patients with stage 2 hypertension, Novartis, Inc., \$107,362.44 (WBH #RC-90277) status: closed 2009
- G42) **McCullough PA**, site Principal Investigator, Astute SAPPHIRE AST-111, Evaluation of Novel Biomarkers from Acutely Ill Patients at Risk for Acute Kidney Injury, Astute Medical, Inc, San Diego, CA, \$23,195.50 status: closed 2012
- G43) **McCullough PA**, site Principal Investigator, protocol number 156-10-292 titled "An Observational Prospective Registry to Identify Demographic and Clinical Characteristics of Patients Hospitalized with Euvoletic and Hypervolemic Hyponatremia and Assess the Comparative Effectiveness of Available Treatments and the Impact on Resource Utilization. Otsuka Inc., \$21,262.60 status: initial contract fulfilled, reopened under extension and registry completed in 2013

- G44) **McCullough PA**, site Principal Investigator, PROspective Multicenter Imaging Study for Evaluation of Chest Pain (PROMISE) Study, National Heart, Lung, and Blood Institute (NHLBI), Pamela Douglas, MD, Principal Investigator Clinical Coordinating Center, Duke Clinical Research Institute, \$17,000.00 status: closed 2012
- G45) **McCullough PA**, site Principal Investigator, ACZ885M/Canakinumab Clinical Trial Protocol CACZ885M2301 A randomized, double-blind, placebo-controlled, event-driven trial of quarterly subcutaneous canakinumab in the prevention of recurrent cardiovascular events among stable post-myocardial infarction patients with elevated hsCRP. Novartis, Inc., 2011 \$279,223.00 status: closed 2015
- G46) **McCullough PA**, site Principal Investigator, AN-CVD2233 Evaluation of the Safety and Efficacy of Short-term A-002 (Varespladib) Treatment in Subjects with Acute Coronary Syndromes (VISTA-16) Anthera Pharmaceuticals, Inc., 2011 \$72,600.00 status: closed 2011
- G47) **McCullough PA**, site Principal Investigator, BC22140A Cardiovascular outcomes study to evaluate the potential of aleglitazar to reduce cardiovascular risk in patients with a recent acute coronary syndrome (ACS) event and type 2 diabetes mellitus (T2D), F. Hoffmann-La Roche Ltd, \$307,500.00 status: closed 2012
- G48) **McCullough PA**, site Principal Investigator, A Double-blind, Randomized, Placebo-controlled, Multicenter Study (Phase 2) to Evaluate the Safety and Efficacy of IV Infusion Treatment with Omecamtiv Mecarbil in Subjects with Left Ventricular Systolic Dysfunction Hospitalized for Acute Heart Failure (Protocol 20100754), Amgen, Inc, 253,464.00 status: closed 2012
- G49) **McCullough PA**, site Principal Investigator, MB102-073 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with Inadequately Controlled Hypertension on an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB), Bristol-Myers Squibb Research and Development, 2011 \$34,115.00 status: closed 2012
- G50) **McCullough PA**, site Principal Investigator, MB102-077 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with inadequately controlled hypertension treated with an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) and an additional Antihypertensive medication, Bristol-Myers Squibb Research and Development, \$34,115.00 status: closed 2011
- G51) **McCullough PA**, site Principal Investigator, ABT M11350 RADAR: Reducing Residual Albuminuria in Subjects with Diabetes and Nephropathy with AtRasentan – A Phase 2b, Prospective, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate Safety and Efficacy, Abbott Laboratories, \$188,377.00 status: closed 2012

- G52) **McCullough PA**, site Principal Investigator, PEGASUS TIMI 54 trial, A Randomized, Double-Blind, Placebo Controlled, Parallel Group, Multinational Trial, to Assess the Prevention of Thrombotic Events with Ticagrelor Compared to Placebo on a Background of Acetyl Salicylic Acid (ASA) Therapy in Patients with History of Myocardial Infarction, AstraZeneca, 2011 \$98,530.00 status: transferred to PI Marcel Zughaib, MD
- G53) **McCullough PA**, site Principal Investigator, A Double-blind, Randomized, Placebo-controlled, Multicenter Study Assessing the Impact of Additional LDL-Cholesterol Reduction on Major Cardiovascular Events When AMG 145 is Used in Combination with Statin Therapy in Patients with Clinically Evident Cardiovascular Disease AMG 145 Amgen Protocol Number 20110118 EudraCT number 2012-001398-97, Amgen, Inc., \$1,732,062.80 status: closed 2016
- G54) **McCullough PA**, site Principal Investigator, A single-blind, multi-site trial of the dietary supplement anatabine (RCP006) to determine the effects on peripheral markers of inflammation in patients with elevated levels of C-reactive protein (CRP). Roskamp Institute Protocol Number RI-11-01, \$6700.00 status: closed 2012
- G55) **McCullough PA**, site Principal Investigator, Long-term safety and tolerability of REGN727/SAR236553 in high cardiovascular risk patients with hypercholesterolemia not adequately controlled with their lipid modifying therapy: a randomized, double-blind, placebo-controlled study LTS11717 Sanofi Aventis, \$252,000.00 status: closed 2013
- G56) **McCullough PA**, site Principal Investigator, Assessment of Clinical Effects of Cholesteryl Ester Transfer Protein Inhibition with Evacetrapib in Patients at a High Risk for Vascular Outcomes – the ACCELERATE Study, protocol I1V-MC-EIAN, Eli Lilly, \$421,202.00 status: closed 2014
- G57) **McCullough PA**, site Principal Investigator, AEGR-733-025, LOWER: Lomitapide Observational Worldwide Evaluation Registry, Aegerion, Inc., 2014, \$23,478.00 status: open
- G58) **McCullough PA**, site Principal Investigator, The Evaluation Of PF-04950615 (RN316), In Reducing the Occurrence of Major Cardiovascular Events in High Risk Subjects (SPIRE-1), Pfizer, Inc., \$145,343.90 status: closed 2016
- G59) **McCullough PA**, site Principal Investigator, The Evaluation Of PF-04950615 (RN316) In Reducing the Occurrence of Major Cardiovascular Events in High Risk Subjects (SPIRE-2), Pfizer, Inc., \$145,343.90 status: closed 2016
- G60) **McCullough PA**, site Principal Investigator, Long Term Observational Study in Patients with Homozygous Familial Hypercholesterolemia Treated with Kynamaro™, Genzyme-Sanofi, Inc., \$61,260.00 status: closed 2018

- G61) **McCullough PA**, site Principal Investigator, CUP14366, Alirocumab (SAR236553) Expanded Access Program for the Treatment of Severe Hypercholesteremia Not Controlled with Maximal Tolerated Dose of Lipid Lowering Therapy Administered According to Standard of Care, Sanofi-Regeneron, Inc., 2015 \$8,500.00 status: closed 2015
- G62) **McCullough PA**, site Principal Investigator, Aspirin Dosing: A Patient-Centric Trial Assessing Benefits and Long-term Effectiveness (ADAPTABLE), Patient-Centered Outcomes Research Institute, 2015 \$29,400.00 status: open
- G63) **McCullough PA**, site Principal Investigator, Assessment of Heart Failure using Condition-Specific Impact Assessments (PROMIS), Patient-Centered Outcomes Research Institute, 2015 \$81,840.00 status: 2017 status: closed
- G64) **McCullough PA**, site Principal Investigator, A Randomized Parallel-Group, Placebo-Controlled, Double-Blind, Event-Driven, Multi-Center Pivotal Phase III Clinical Outcome Trial of Efficacy and Safety of the Oral sGC Stimulator Vericiguat in Subjects With Heart Failure With Reduced Ejection Fraction (HFrEF) - VeriCiguaT Global Study in Subjects With Heart Failure With Reduced Ejection Fraction (VICTORIA), Merck, Inc, 2017 \$878,163.90 status: closed
- G65) **McCullough PA**, site Principal Investigator, A phase III randomised, double-blind trial to evaluate efficacy and safety of once daily empagliflozin 10 mg compared to placebo, in patients with chronic Heart Failure with preserved Ejection Fraction (HFpEF), EMPEROR-PRESERVED, Boehringer-Ingelheim, 2017 \$170,099.00, status: open
- G66) **McCullough PA**, site Principal Investigator, A phase III randomised, double-blind trial to evaluate efficacy and safety of once daily empagliflozin 10 mg compared to placebo, in patients with chronic Heart Failure with preserved Ejection Fraction (HFpEF), EMPEROR-REDUCED, Boehringer-Ingelheim, 2017 \$170,099.00, status: open
- G67) Schiffmann R, **McCullough PA** Sub-Investigator, 014-097 PB-102-F03 (Sponsor - Protalix - PRX-102 1mg/kg q 2 weeks) A Multi Center Extension Study of PRX-102 Administered by Intravenous Infusions Every 2 Weeks for 60 Months to Adult Fabry Patients, status: open
- G68) Schiffmann R, **McCullough PA** Sub-Investigator, 014-288 AT1001-042 (Sponsor - Amicus - oral drug - chaperone) An Open-Label Extension Study to Evaluate the Long-Term Safety and Efficacy of Migalastat Hydrochloride Monotherapy in Subjects with Fabry Disease, status: closed.
- G69) Schiffmann R, **McCullough PA** Sub-Investigator, 016-153 PB-102-F20 (Sponsor - Protalix - BLINDED - ERT PRX-102 or Fabrazyme 1mg/kg q 2 weeks) A Randomized, Double blind, Active Control Study of the Safety and Efficacy of PRX-102 compared to Agalsidase

Beta on Renal Function in Patients with Fabry Disease Previously Treated with Agalsidase Beta – Study Number PB-102-F20, status: open

- G70) Schiffmann R, **McCullough PA** Sub-Investigator, 017-189 PB-102-F50 (Sponsor - Protalix - PRX-102 infusion - 2mg/kg monthly) A Phase 3, Open Label, Switch Over Study to Assess the Safety, Efficacy and Pharmacokinetics of pengunigalsidase alfa (PRX-102) 2 mg/kg Administered by Intravenous Infusion Every 4 Weeks for 52 weeks in Patients with Fabry Disease Currently Treated with Enzyme Replacement Therapy: Fabrazyme® (agalsidase beta) or Replagal (agalsidase alfa), status: open
- G71) Schiffmann R, **McCullough PA** 018-150 MODIFY (Sponsor - Idorsia - oral drug - substrate reduction) A multicenter, double-blind, randomized, placebo controlled, parallel-group study to determine the efficacy and safety of lucerastat oral monotherapy in adult subjects with Fabry disease, status: open
- G72) **McCullough PA**, site Principal Investigator, A Randomized, Double-blind, Placebo-controlled, Parallel-group Multicenter Study to Evaluate the Effects of Sotagliflozin on Clinical Outcomes in Hemodynamically Stable Patients with Type 2 Diabetes Post Worsening Heart Failure (SAR 439954), Sanofi US Services, Inc, \$214,600.00, 2019, status: open
- G73) **McCullough PA**, site Sub-Investigator, A Randomized, Double-blind, Placebo-controlled, Parallel-group Study to Evaluate the Safety and Efficacy of Alirocumab in Patients with Homozygous Familial Hypercholesterolemia (R727-CL-1628), Regeneron Pharmaceuticals, Inc, \$143,503.00, 2019, status: closed
- G74) **McCullough PA**, site Sub-Investigator, A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of Evinacumab in Patients with Homozygous Familial Hypercholesterolemia (R1500-CL-1629) Regeneron Pharmaceuticals, Inc, \$143,503.00, 2019, status: closed
- G75) **McCullough PA**, site Sub-Investigator, An Open-Label Study to Evaluate the Long-Term Efficacy and Safety of Evinacumab in Patients with Homozygous Familial Hypercholesterolemia (R1500-CL-1719) Regeneron Pharmaceuticals, Inc, \$65,317.44, 2019, status: open
- G76) Bottiglieri T, Tecson K, **McCullough PA**, Identifying metabolomic profiles among genetically confirmed familial hypercholesterolemia, dyslipidemia without familial hypercholesterolemia, and healthy controls, Baylor Health Care System Foundation, \$49,293.80, 2020 status: open
- G77) **McCullough PA**, Wheelan KE. BSWRI—Overall Principal Investigator, 001 A prospective clinical study of hydroxychloroquine in the prevention of SARS-COV-2 (COVID-19) infection in health care workers after high-risk exposures, FDA IND 149293, Baylor Health Care System Foundation, \$506,506.00, 2020 status: open

G78) **McCullough PA**, Site Investigator, 4D-310-C001 entitled “An Open-label, Phase 1/2 Trial of Gene Therapy 4D-310 in Adult Males with Fabry Disease” 4D Molecular Therapeutics, Inc, \$101,210.85, 2020 status: open

G79) **McCullough PA**, Site Investigator, TQJ230, Assessing the Impact of Lipoprotein (a) Lowering With TQJ230 on Major Cardiovascular Events in Patients With CVD (Lp(a)HORIZON) Novartis Pharmaceuticals Corporation, \$3,475,000.00, 2020 status open

### Published Abstracts

- A1) **McCullough PA**, O'Neill WW, May M, Lichtenberg A, Strzelecki M, Grines CG, Safian RD. Predictors of Acute Complications after Percutaneous Coronary Revascularization with New Devices. J Am Coll Cardiol 1994; 122-123A [oral].
- A2) **McCullough PA**, O'Neill WW, Hoffman M, Glazier S, Safian RD. The "Protective Effect" of Restenosis Lesions on Angiographic Complications with New Devices. Circulation 1995;92:I-346 [poster].
- A3) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill, WW. Acute Contrast Nephropathy After Coronary Intervention: Prediction of Dialysis and Related Mortality in the Elderly. American Journal of Geriatric Cardiology 1996;5:52 [poster].
- A4) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill WW. Acute Contrast Nephropathy After Coronary Intervention: Incidence, Risk Factors, and Relationship to Mortality. J Am Coll Cardiol 1996;304-305A [oral].
- A5) **McCullough PA**, Ayad O, Goldstein JA. Cost-Effectiveness Analysis of Patients Admitted with Chest Pain and Normal or Near-Normal Electrocardiograms. Cathet Cardiovasc Diag 1996;38:118 [poster].
- A6) Aliabadi D, **McCullough PA**, Kaplan B, Grines CL, Safian RD, Pica M, O'Neill WW, Goldstein JA. A Novel Mobile Fluoroscopic Imaging System for Rapid Bedside Coronary Angiography. Cathet Cardiovasc Diag 1996;38:111 [oral].
- A7) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. Early Prediction of Death and Neurologic Outcome in Out-of-Hospital Sudden Death Survivors in the Emergency Department. Circulation 1996;94:I-356 [poster].
- A8) **McCullough PA**, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Grines CL. A Prospective Randomized Trial of Triage Angiography in Suspected Acute Myocardial Infarction Patients Who are Considered Ineligible for Reperfusion Therapy. Circulation 1996;94:I-570 [oral].

- A9) Aliabadi D, **McCullough PA**, Grines CL, Safian RD, Pica MC, O'Neill WW, Goldstein JA. A Novel Mobile Fluoroscopic Imaging System for Rapid Bedside Coronary Angiography. J Am Coll Cardiol 1997;450A [poster].
- A10) **McCullough PA**, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaite R, Grines CL. Late Outcomes in the Medicine vs. Angiography for Thrombolytic Exclusion (MATE) Study. Circulation, 1997;96:I-595-596 [oral].
- A11) Redle JD, West AJ, Khurana S, Marzan R, **McCullough PA**, Frumin HI. Prophylactic Oral Amiodarone with Beta Blockade has Favorable Effects on Atrial Fibrillation Post Coronary Bypass Surgery. Circulation, 1997;96:I-125 [poster].
- A12) Sharma ND, Gandhi RS, Philbin EF, Weaver WD, **McCullough PA**. Which Patients with Left Ventricular Dysfunction Require Chronic Anticoagulation? A Prospective Analysis. J Am Coll Cardiol 1998;31:33A. [poster].
- A13) **McCullough PA**, Tobin KJ, Kahn JK, O'Neill WW, Thompson RJ. Prediction of In-hospital Survival after Sudden Cardiac Death: Derivation and Validation of a Clinical Model. J Am Coll Cardiol 1998;31:485A [poster].
- A14) Stevens M, **McCullough PA**, Tobin KJ, Speck JP, Westveer DC, Guido-Allen DA, Hartenburg DS, Puchrowicz-Ochocki SB, O'Neill WW. A Randomized Trial of Prevention Measures in Patients at High Risk for Contrast Nephropathy: Initial Results of the PRINCE Study. J Am Coll Cardiol 1998;31:469A [poster].
- A15) Tobin KJ, **McCullough PA**, Speck JP, Westveer DC, Guido-Allen DA, Hartenburg DS, Puchrowicz-Ochocki SB, O'Neill WW, Stevens M. What Role Does Mannitol Play in Preventing Contrast Nephropathy? A Prospective Analysis. J Am Coll Cardiol 1998;31:469A [poster].
- A16) **McCullough PA**, Al-Zagoum M, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaite R, Grines CL, O'Neill WW. A Time to Treatment Analysis in the Medicine vs. Angiography for Thrombolytic Exclusion Trial. Cathet Cardiovasc Diag 1998;44:105 [oral].
- A17) **McCullough PA**, Al-Zagoum M, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaite R, Grines CL. A Program of Triage Angiography in Acute Coronary Syndromes Ineligible for Thrombolysis: An Efficacy Analysis. Cathet Cardiovasc Diag 1998;44:105[poster].
- A18) Philbin EF, **McCullough PA**, Polanczyk CA, Jenkins PL, DiSalvo TG. Are Subjects in Heart Failure Trials Similar in Clinical Practice? Circulation, 1998;98:I-866 [moderated poster].
- A19) **McCullough PA**, Smith S, Borzak S. Understanding the Risks Associated with Baseline Renal Function in the Coronary Care Unit. Circulation, 1998;98:I-413 [poster].



- A20) Afzal A, Gunda M, Brawner CA, Havstad S, **McCullough PA**, Keteyian SJ. Race and the Rate of Referral to Cardiac Rehabilitation. *Circulation*, 1998;98:I-810-811 [poster].
- A21) Borzak S, Every NR, Jankowski M, Havstad S, Chase GA, **McCullough PA**, Elston-Lafata J, Weaver WD. Elderly Patients with Unstable Angina Have Ongoing Risk for Future Events. *Circulation*, 1998;98:I-629 [oral].
- A22) Borzak S, Every NR, Chase GA, Jankowski M, Havstad S, **McCullough PA**, Elston-Lafata J, Weaver WD. U.S. Regional Differences in Use of Revascularization for Unstable Angina Patients. *Circulation*, 1998;98:I-275 [oral].
- A23) **McCullough PA**, Newman M, Kaiser Carlson L, Flower J, Tuchfield B. Accelerating the Improvement in Community Cardiovascular Health Using Web-Enhanced Project Development. *J Am Coll Cardiol* 1999;33:7A [info@ACC].
- A24) Mehra P, Pasnoori V, Sengstock D, Obaidat O, Brawner CA, Keteyian SJ, Philbin EF, **McCullough PA**. The Effect of Reactive Airways Disease on Peak Oxygen Consumption in Congestive Heart Failure. *J Am Coll Cardiol* 1999;33:172A [poster].
- A25) **McCullough PA**, Cingireddy U, Philbin EF, Weaver WD. Evidence for a Heart Failure Epidemic: Findings from the REACH Study. *J Am Coll Cardiol* 1999;33:179A [poster].
- A26) **McCullough PA**, Cingireddy U, Philbin EF, Weaver WD. Secular Trends in the Management of Congestive Heart Failure by Primary Care Physicians and Cardiovascular Specialists. *J Am Coll Cardiol* 1999;33:247A [poster]
- A27) Hassan SA, Borzak S, Philbin EF, Soman S, Shah S, Weaver WD, Yee J, Marks KR, **McCullough PA**. The Impact Chronic Renal Insufficiency on Heart Failure Mortality after Hospitalization. *Journal of Cardiac Failure* 1999;5 Suppl 1:70. [poster].
- A28) Sengstock D, Obaidat O, Pasnoori V, Mehra P, **McCullough PA**. Asthma, Chronic Beta-Agonist Use, and the Development of Dilated Cardiomyopathy: Primary Results from the ABCHF Study. *Journal of Cardiac Failure* 1999;5 Suppl 1:64. [moderated poster].
- A29) **McCullough PA**, Kuntz RE, Marks KR, Popma JJ. Should We Change from Aspirin and Ticlopidine to Aspirin and Clopidogrel after Routine Coronary Stenting? A Population-Based Decision Analysis. *Circulation* 1999;100:I-379.[oral].
- A30) **McCullough PA**, Prakash R, Tobin KJ, O'Neill WW, Thompson RJ. Application of a Cardiac Arrest Score in Patients with Sudden Death and ST Segment Elevation for Triage Angiography and Intervention. *Fighting Sudden Cardiac Death: A Worldwide Challenge*, 1999;18:T-2.

- A31) **McCullough PA**, Philbin EF, Czerska B, Spertus JA, Weaver WD. Population-based Medication Profiling in Heart Failure: Treatment Related Outcomes from the R.E.A.C.H. Study. J Am Coll Cardiol 2000; 35:542A [moderated poster].
- A32) **McCullough PA**, Philbin EF, Czerska B, Spertus JA, Weaver WD. The Diagnostic Evaluation of Newly Discovered Heart Failure: Opportunities for Improvement from the R.E.A.C.H. Study. J Am Coll Cardiol 2000;35:327A [poster].
- A33) Shah SS, Tokarski GF, McCord JK, Khoury NE, McCabe KB, Morlock RJ, Noor H, **McCullough PA**. Impact of an Emergency Department Cardiac Clinical Decision Unit on a Population of Patients with Episodic Chest Discomfort. J Am Coll Cardiol 2000;35:380A [poster].
- A34) Kadakia RA, **McCullough PA**, Soman S, Jankowski M, Borzak S, Keeley EC. Does Percutaneous Revascularization Confer a Long-Term Survival Benefit in Patients with Acute Renal Failure? J Inv Cardiol 2000;12(11):P1.
- A35) **McCullough PA**, Philbin EF, Spertus JA, Weaver WD. Gender Differences in the Diagnostic Evaluation of Heart Failure: Findings from the R.E.A.C.H. Study. J Inv Cardiol 2000;12(11):P23.
- A36) Pampati V, Shenkman HJ, McKinnon JE, Khandelwal AK, Nori DM, **McCullough PA**. The Significance of QRS Prolongation in Heart Failure: Findings from the CONQUEST Study. Chest2000;118(4):133S.
- A37) Hassan SA, Bhatt S, Borzak S, Pallekonda V, Soman SS, Yee J, Marks K, **McCullough PA**. Clinical and Echocardiographic Determinants of Congestive Heart Failure with Renal Dysfunction.Chest2000;118(4):134S.
- A38) Soman SS, Vera E, Jaffery H, Singh S, Marks KR, Borzak S, **McCullough PA**. Impact of Age and Admission Hemoglobin on Coronary Care Unit Mortality. Chest 2000; 118(4):166S.
- A39) Soman SS, Shah S, Marks KR, Yee J, Borzak S, **McCullough PA**. The Independent Association of Renal Dysfunction and Arrhythmias in the Intensive Care Unit Setting. Chest 2000;118(4):171172S.
- A40) Sallach JA, Soman SS, Sallach SM, Yee J, Karriem V, Hoffman RM, **McCullough PA**. "Homocysteine Flux": An Opportunity to Modify Cardiovascular Risk in Hemodialysis Patients.Chest2000;118(4):218S.
- A41) McKinnon JE, Khandelwal AK, Shenkman HJ, Pampati V, Nori DM, **McCullough PA**. Congestive Heart Failure and QRS Duration: Utilization in Establishing Prognosis in Systolic and Diastolic Dysfunction—Results of the CONQUEST Study. Chest 2000; 118(4):221S.
- A42) Kadakia RA, Bonifacio DL, Mikhail B, Clark VL, **McCullough PA**. Survival Following Coronary Intervention in Patients with End Stage Renal Disease. Chest 2000; 118(4):226-227S.

- A43) Hassan S, Nori D, Bhatt S, Borzak S, Philbin E, Weaver WD, Soman S, Shah S, **McCullough PA**. Impact of Bundle Branch Block (BBB) Pattern on EKG on Survival in Patients with Congestive Heart Failure (CHF), an Eight Year Follow-up Study. *Journal of Heart Failure* 2000;6(1):65 [A258].
- A44) Soman SS, Sallach J, Sallach S, **McCullough PA**, Karriem V, Hoffman R, Yee J. Homocysteine (tHcy) Removal by Hemodialysis (HD) Modifies Cardiovascular Disease (CVD) Risk in ESRD. *American Society of Nephrology* 2000 [A0887].
- A45) McCord JK, Nowak R, **McCullough PA**, Borzak S, Tokarski G, Tomlanovich M, Foreback C, Malki Q, Asfour A, Weaver WD. Very Rapid Rule-out: 90 Minute Exclusion of Acute Myocardial Infarction (AMI) with Troponin-I (cTnI) and Myoglobin (Myo). *Circulation* 2000;102(18): II497.
- A46) Shenkman HJ, McKinnon JE, Khandelwal AK, Pampati V, Nori DM, **McCullough PA**. Determinants of QRS Prolongation in a Generalized Heart Failure Population: Findings from the Conquest Study. *Circulation* 2000;102(18): II617.
- A47) Philbin EF, **McCullough PA**, Di Salvo TG, Dec W, Jenkins PL, Weaver WD. Socioeconomic Status is an Important Determinant of Use of Invasive Strategies after Myocardial Infarction in Hospitals with Cardiac Surgery. *Circulation* 2000;102(18): II840.
- A48) **McCullough PA**, Sandberg KR, Borzak S, Hudson MP, Garg M, Manley HJ. Use of Aspirin and thrombolysis for myocardial infarction in patients with chronic renal disease: An opportunity for quality improvement, AHA Conference on Quality of Care and Outcomes P93, *Circulation* 2001.
- A49) Ketterer MW, Goldberg AD, **McCullough PA**, Patel S, Farha AJ, Clark V, Keteyian S, Dennollet J, Chapp J, Thayer B, Deveshwar S. Psychosocial Correlates of Early Ischemic Heart Disease (IHD): Preliminary Results. *Psychosomatic Medicine* 2001;63:172-173.
- A50) Fitzgerald FE, Thayer BL, Ehrman JK, Keteyian S, Jarvis R, **McCullough PA**. A Hospital Employee Cholesterol Challenge Using Spreads Containing Plant Sterol Esters to Help Reduce Total and LDL-Cholesterol. *American Diabetes Association* 2001 [p000].
- A51) **McCullough PA**, Garg M, Bonifacio DL, Malineni K, Kadakia RR, Soman SS, Sandberg KR. Relationship between Lipid Levels and Advanced Coronary Calcification in End Stage Renal Disease. *Central Society for Clinical Research Combined Annual Meeting, 2001 [P78] Journal of Investigative Medicine* 2001;49:284A.
- A52) **McCullough PA**, Hudson MP, Garg M, Borzak S. Benefits of Aspirin and Beta-Blockade after Myocardial Infarction in Patients with Advanced Renal Dysfunction. *Central Society for Clinical Research Combined Annual Meeting, 2001 [P79] Journal of Investigative Medicine* 2001;49:285A.

- A53) Hannen MN, **McCullough PA**, Garg M, Quick AM. Tricuspid Valve Endocarditis in a Patient with Negative Blood Cultures and Right Atrial Mass. Central Society for Clinical Research Combined Annual Meeting, 2001 [P96] Journal of Investigative Medicine 2001;49:287A.
- A54) **McCullough PA**, Garg M, Borzak S, Hudson MP. Outcomes after Myocardial Infarction in Patients with Advanced Renal Disease Treated with Aspirin and  $\beta$ -Blockade. CHEST 2001;120(4):145S.
- A55) **McCullough PA**, Garg M, Borzak S, Hudson MP. Benefits of Aspirin and Beta-Blockade after Myocardial Infarction in Patients with Chronic Renal Disease. Circulation 2001;104 (17):II-234.
- A56) Manhapra A, Jacobsen G, Havstad S, **McCullough P**, Hudson MP, Weaver WD, Borzak S. Improved Long Term Survival with Beta Blocker Therapy Among African Americans and Caucasians with Myocardial Infarction. Circulation 2001;104 (17):II-627.
- A57) Manhapra A, Jacobsen G, Havstad S, **McCullough P**, Hudson MP, Weaver WD, Borzak S. Racial Differences in Long Term Survival following an Acute Myocardial Infarction. Circulation 2001;104 (17):II-778.
- A58) Brown WW, Bakris GL, Collins A, Flack JM, Gannon M, Greene E, Grimm R, Keane WF, Klag M, **McCullough P**, Politoski G. Identification of Individuals at High Risk (HR) for Kidney Disease (KD) via Targeted Screening. International Society of Hypertension in Blacks 2001 Meeting, Las Vegas, July 8-12, 200, Plenary Presentation and Poster. Ethnicity & Disease 2001; 11 (2): 358.
- A59) Brown WW, Bakris GL, Chen S, Collins A, Davis J, Flack JM, Gannon M, Greene E, Grimm R, Keane WF, Klag MJ, **McCullough PA**, Politoski G, Tran A. St. Louis VAMC/St. Louis University, Rush Presbyterian, Minneapolis Medical Research Foundation, NKF, Wayne State University, Mayo Clinic, Hennepin County Medical Center, Johns Hopkins Medical Institutions, UMKC. Targeted Screenings Identify Persons at Risk for Kidney Disease (KD). Poster, ASN/ISN International Congress of Nephrology, San Francisco, October 13-17, 2001. J of the Am Soc of Nephrol 2201; 12: A1003.
- A60) Maisel AS, Hlavin P, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Westheim A, Abraham WT, Storrow AB, McKay CA, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. B-Type Natriuretic Peptide in the Emergency Diagnosis of Diastolic Dysfunction Heart Failure. J Am Coll Cardiol 2002;39:140A.
- A61) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Steg G, Duc P, Westheim A, Omland T, Storrow AB, Abraham WT, Wu AH, Clopton P, Lenert L, Maisel AS, for the BNP Multinational Study Investigators. B-Type Natriuretic Peptide Adds to Clinical Judgment in the Diagnosis of Heart Failure: A Bayesian Analysis From the BNP Multinational Study. J Am Coll Cardiol 2002;39:140A.

- A62) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Loh E, Steg G, Duc P, Omland T, Westheim A, Abraham WT, Storrow AB, Wu AH, Hlavin P, Maisel AS, for the BNP Multinational Study Investigators. The Independent Contribution to Elevations in B-Type Natriuretic Peptide from Atrial Fibrillation. *J Am Coll Cardiol* 2002;39:90A.
- A63) Maisel AS, Kazanegra R, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Wold-Knudsen C, Westheim A, Abraham WT, Storrow AB, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. The Effect of Diabetes on B-Type Natriuretic Peptide Levels in Patients with Acute Dyspnea. *J Am Coll Cardiol* 2002;39:182A.
- A64) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Jacobsen G, Weaver WD, Sandberg KR, McCord J. Performance of Cardiac Troponin I in the Exclusion of Myocardial Infarction in Patients with Advanced Renal Disease. *J Am Coll Cardiol* 2002;39:326A.
- A65) Khandelwal A, McKinnon JE, Shenkman HJ, Pampati V, Nori D, Kaatz S, Sandberg KR, **McCullough PA**. Epidemiology of Systolic and Diastolic Dysfunction Heart Failure in 3,471 Urban Patients. *J Am Coll Cardiol* 2002;39:192A.
- A66) Maisel AS, Kazanegra R, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Westheim A, Abraham WT, Storrow AB, Lamba S, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. Primary Results of the BNP Multinational Study: B-Type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure. *J Am Coll Cardiol* 2002;39:201A.
- A67) **McCullough PA**, McCord J, Nowak RM, Hollander JE, Duc P, Omland T, Abraham WT, Wu AHB, Krishnaswamy P, Maisel AS. B-type Natriuretic Peptide Should be Part of the Diagnostic Evaluation of Heart Failure: Implications from the Breathing Not Properly (BNP) Multinational Study. *J Heart Failure* 2002;7(1):44.
- A68) Nowak RM, Maisel AS, McCord J, Kazanegra R, Hlavin P, Lenert LA, Clopton P, Hollander JE, Loh E, Duc P, Steg PG, Westheim A, Omland T, Abraham WT, Lamba S, Storrow AB, Wu AHB, McKay C, **McCullough PA**. B-type Natriuretic Peptide Complements Clinical Judgment in the Emergency Diagnosis of Heart Failure. *Acad Emerg Med* 2002 9: 359.
- A69) Hollander JE, Maisel AS, Nowak RM, McCord J, Kazanegra R, Hlavin P, Lenert LA, Clopton P, Loh E, Duc P, Steg PG, Wertheimer A, Omland T, Abraham WT, Lamba S, Storrow AB, Wu AHB, McKay C, **McCullough PA**. Impact of Acute Myocardial Ischemia on Blood B-Type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure. *Acad Emerg Med* 2002 9: 440.
- A70) Knudsen CW, Omland T, Clopton P, Westheim A, Abraham WT, Storrow AB, McCord J, Nowak RM, Steg PG, Duc P, **McCullough PA**, Maisel AS. Diagnostic Value of Chest Radiographs in Patients Presenting with Acute Dyspnea: Comparison with B-type Natriuretic Peptide. *Circulation* 2002;106(19):II-683.

- A71) Omland T, Knudsen CW, Westheim A, McCord J, Aumont MC, **McCullough PA**. The Effect of Hypertension on B-type Natriuretic Peptide Levels in Patients with Acute Dyspnea: An Analysis from the Breathing Not Properly Study. *Circulation* 2002;106(19):II-477.
- A72) Sallach JA, McCord J, Sallach SM, Duc P, Omland T, Nowak RM, Hollander JE, Storrow AB, Abraham WT, Wu AHB, Clopton P, Krishnaswamy P, Maisel AS, **McCullough PA**. The Effect of Pre-Existing Ischemic Heart Disease on B-type Natriuretic Peptide Levels in Patients Presenting with Acute Dyspnea. *Circulation* 2002;106(19):II-565.
- A73) Ehrman JK, Manhapra A, Jacobsen G, **McCullough PA**. Lower Socioeconomic Status is Associated with Poor Survival in Heart Failure Patients. *Circulation* 2002;106(19):II-762.
- A74) **McCullough PA**, Omland T, Knudsen CW, Duc P, Nowak RM, McCord J, Hollander JE, Aumont MC, Steg PG, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Alan S. Maisel AS, BNP Multinational Study Investigators. Uncovering Heart Failure in Patients with Bronchospasm: Rationale for the Early Use of B-Type Natriuretic Peptide in the Emergency Department. *J Am Coll Cardiol* 2003;41:142A.
- A75) Maisel AS, Kazanegra R, **McCullough PA**, McCord J, Nowak RM, Hollander JE, Wu AHB, Duc P, Omland T, Storrow AB, Krishnaswamy P, Abraham WT, Clopton P, Steg PG, Westheim A, Knudsen CW, Herrmann HC. Bedside B-Type Natriuretic Peptide in the Emergency Diagnosis of Systolic and Nonsystolic Heart Failure: Results From the Breathing Not Properly (BNP) Multinational Study. *J Am Coll Cardiol* 2003;41:143A.
- A76) Steg PG, Duc P, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Baron G, Aumont MC, Mentré F, **McCullough PA**, Maisel AS, BNP Multinational Study Investigators. A Comparison of Bedside B-Type Natriuretic Peptide Versus Echocardiographic Determination of Ejection Fraction in the Diagnosis of Heart Failure. *J Am Coll Cardiol* 2003;41:337A.
- A77) Mundy BJ, McCord J, Nowak RM, Hudson MP, Czerska B, Jacobsen G, Omland T, Wu AHB, Duc P, Hollander JE, **McCullough PA**, Maisel AS, BNP Multinational Study Investigators. B-Type Natriuretic Peptide Levels Are Inversely Related to Body Mass Index in Patients With Heart Failure. *J Am Coll Cardiol* 2003;41:158A.
- A78) **McCullough PA**, Nowak RM, McCord J, Omland T, Knudsen CW, Duc P, Hollander JE, Steg PG, Aumont MC, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Maisel AS, BNP Multinational Study Investigators. What is in the Differential Diagnosis of a B-Type Natriuretic Peptide Level of 1,000 pg/ml? *J Am Coll Cardiol* 2003;41:159A.
- A79) **McCullough PA**, Steg PG, Aumont MC, Duc P, Omland T, Knudsen CW, Nowak RM, McCord J, Hollander JE, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Maisel AS, BNP Multinational Study Investigators. What Causes Elevated B-Type Natriuretic Peptide in Patients Without Heart Failure? *J Am Coll Cardiol* 2003;41:278A.

- A80) Gurudutt B. Kulkarni, John House, John A. Spertus, **Peter A. McCullough**. Chronic Kidney Disease: The Silent Killer After Coronary Angioplasty. *J Am Coll Cardiol* 2003;41:54A.
- A81) Chew DP, Bhatt DL, Berger PB, Henry T, **McCullough PA**, Feit F, Bittl JA, Lincoff AM. Bivalirudin Provides Increasing Benefit With Declining Renal Function in Percutaneous Coronary Intervention: A Meta-Analysis of 5,035 Patients Enrolled in Three Randomized Trials. *J Am Coll Cardiol* 2003;41:83A.
- A82) Stone GW, **McCullough PA**, Tumlin J, Madyoon H, Murray P, Wang A, Chu AA, Schaer G, Stevens M, Wilensky RL, O'Neill WW, Lepor N. A Prospective, Randomized Placebo-Controlled Multicenter Trial Evaluating Fenoldopam Mesylate for the Prevention of Contrast Induced Nephropathy: The CONTRAST Trial. *J Am Coll Cardiol* 2003;41:83A.
- A83) **McCullough PA**, Duc P, Omland T, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Westheim A, Aumont MC, Knudsen CW, Storrow AB, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, BNP Multinational Study Investigators. B-Type Natriuretic Peptide and Renal Function in the Diagnosis of Heart Failure: An Analysis from the BNP Multinational Study. *J Am Coll Cardiol* 2003;41:222A.
- A84) **McCullough PA**, Sandberg KR, Yanez J. Determinants of vascular calcification in patients with chronic kidney disease and end-stage renal disease: a systematic review. *Am J Kidney Dis* 2003;42:227A.
- A85) Kazanegra R, Clopton P, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg PG, Westheim A, Perez A, Herrmann HC, Knudsen CW, Aumont M-C, **McCullough PA**, Maisel AS. The impact of age, race and gender on the ability of B-type natriuretic peptide to aid in the emergency diagnosis of heart failure: results from the breathing not properly (BNP) multinational study. *J Cardiac Failure* 2003; 9(5):S36.
- A86) Aumont MC, Duc P, Baron G, McCord JA, Omland T, Storrow AB, **McCullough PA**, Maisel AS. High levels of brain natriuretic peptide without chronic heart failure: analysis of a multicentre study. *Eur Heart J* 2003;24(530): P2810.
- A87) Havranek EP, Masoudi FA, Rumsfeld JS, Luther SA, **McCullough PA**, Jones PG, Rathore SS. Changes in BNP are not associated with outcomes in outpatients with heart failure. *Circulation* 2003;108(17):IV-692.
- A88) Sandberg KR, Gallagher MJ, Krause KR, Franklin BA, **McCullough PA**. Caloric expenditure in the morbidly obese. *Circulation* 2003;108(17):IV-735.
- A89) Gallagher MJ, Sandberg KR, de Jong A, Krause KR, **McCullough PA**, Franklin BA. Heart rate recovery after symptom limited exercise testing in obese patients. *Circulation* 2003;108(17):IV-735.

- A90) Fishbane S, **McCullough PA**, Rudnick M. Systematic Review of the Role of N-acetylcysteine in the Prevention of Contrast Media-Induced Nephropathy. *J Am Soc Nephrol* Vol 14, 2003, 1553A.
- A91) Stacul F, Bertrand ME, **McCullough PA**, Brinker J. Contrast-induced nephropathy (CIN) following iso-osmolar (IOCM) versus low-osmolar contrast media (LOCM) in patients undergoing angiography and predicting factors for CIN: a meta-analysis. *European Congress of Radiology* 2004, B-934.
- A92) Maisel AS, Hollander J, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Kazanegra R, Clopton P, Jesse R, for the REDHOT Investigators. Primary results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT): a multicenter trial examining B-type natriuretic peptide levels, emergency physician decision making and outcomes in patients with shortness of breath. *J Am Coll Cardiol* 2004; 43(5):6A.
- A93) Knudsen CW, Omland T, Westheim A, Clopton P, Abraham WT, Storrow A, McCord JK, Nowak R, Duc P, **McCullough PA**, Maisel A. B-type natriuretic peptide and chest radiograph findings as indicators of systolic dysfunction in patients presenting with acute dyspnea. *J Am Coll Cardiol* 2004; 43(5):171A.
- A94) Soman P, Lahiri A, Mieres J, Calnon D, Wolinsky D, Beller GA, Sias T, Burnham K, Conway L, **McCullough PA**, Daher E, Walsh MN, Wight J, Heller GV, Udelson JE. Investigation of Myocardial-Gated SPECT Imaging as an Initial Strategy in Heart Failure: The IMAGING in Heart Failure Study. *J Am Coll Cardiol* 2004;43(5):323A.
- A95) Maisel AS, Bhalla MA, Gardetto N, McCord J, Nowak RM, Hollander JE, Wu AHB, Duc P, Omland T, Storrow AB, Krishnaswamy P, Abraham WT, Clopton P, Steg G, Aumont MC, Westheim A, Knudsen CW, Perez A, Kamin R, Kazanegra R, Herrmann HC, **McCullough PA**, for the BNP Multinational Study Investigators. Utility of B-type natriuretic peptide levels in predicting outcome of hospitalized patients with congestive heart failure: results of the Breathing Not Properly (BNP) Multinational Study. *J Am Coll Cardiol* 2004; 43(5):234A.
- A96) Sandberg KR, Irving SD, Veri S, **McCullough PA**. Dietary and exercise habits in morbidly obese patients pre and post gastric bypass surgery. Presented at the 44th Annual Conference on Cardiovascular Disease Epidemiology and Prevention. *Circulation* 2004;109(6):P233.
- A97) Sandberg KR, Gallagher MJ, Franklin BA, deJong AT, Krause KR, **McCullough PA**. The effects of bariatric surgery on exercise tolerance and cardiopulmonary fitness in the morbidly obese. *American Society for Bariatric Surgery Annual Meeting* 2004 [P7].
- A98) Odom JS, Sandberg KR, **McCullough PA**. Psychological screening in bariatric surgery candidates. *American Society for Bariatric Surgery Annual Meeting* 2004 [P51].



- A99) de Jong AT, Gallagher MJ, Sandberg KR, Krause KR, Ehrman JK, Keteyian SJ, Brawner CA, **McCullough PA**, Franklin BA. Ability to achieve maximal oxygen consumption during exercise testing in morbidly obese patients. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [999].
- A100) Conklin A, de Jong AT, Franklin BA, **McCullough PA**. Evaluation of cardiorespiratory fitness in morbidly obese adults: a feasibility study. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [1000].
- A101) Grayson D, De Jong AT, Ochoa A, Gallagher M, Franklin BA, **McCullough PA**. Oxygen consumption changes during EECF treatment in patients with and without coronary artery disease. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [1475].
- A102) Jurkovitz C, Norris K, Li S, Shen SC, McGill JA, **McCullough PA**, Narva A, Bakris G, Collins A, Klag M, Brown W. Does Obesity Modify the Association between Hypertension and Race? An Analysis of the KEEP Population. *Preventive Medicine* 39(2004), S21.
- A103) Strunk A, Bhalla V, Clopton P, Nowak RM, McCord J, Hollander JE, Duc, P, Storrow, AB, Abraham WT, Wu AHB, Steg G, Perez A, Kazanegra R, Herrmann HC, Aumont MC, **McCullough PA**, Maisel AS for the BNP Multinational Study Investigators\*. Impact of the history of congestive heart failure on accuracy of BNP in the emergency diagnosis of heart failure: results from the breathing not properly (BNP) multinational study. *J Card Failure* 10(4):S50 #120, 8th Annual Scientific meeting of the Heart Failure Society of America, 2004.
- A104) Jurkovitz C, Li S, Norris K, McGill J, Chen SC, Pergola P, Narva A, **McCullough PA**, Brown W, Klag M. Obesity is associated with risk factors for chronic kidney disease: Kidney Early Evaluation Program Results. *J Am Soc Nephrol* 2004;15:134A.
- A105) Singh AK, McGill J, **McCullough PA**, Brown W, Collins A, Chen SC, Li S, Narva A, Herman WH, Bakris GL, Jurkovitz C, Norris K, Pergola P, Klag M. Advanced stages of chronic kidney disease (CKD) detected among screened individuals with diabetes mellitus, undiagnosed diabetes, and mildly elevated glucose values: Results from the NKF Kidney Early Evaluation Program (KEEP) Study. *J Am Soc Nephrol* 2004;15:322A.
- A106) McGill J, **McCullough PA**, Brown W, Collins A, Chen SC, Li S, Narva A, Herman WH, Bakris GL, Norris K, Pergola P, Klag M, Jurkovitz C. Pre-menopausal and elderly women with chronic kidney disease (CKD) at highest risk of anemia: Results from the NKF Kidney Early Evaluation Program (KEEP) Study. *J Am Soc Nephrol* 2004;15:547A.
- A107) Gallagher MJ, Franklin BA, deJong A, Sandberg KR, Krause KR, Ehrman JK, Keteyian SJ, Brawner CA, Mattichak SJ, Kahn JK, **McCullough PA**. Cardiorespiratory fitness levels in obesity approximate those of heart failure patients: implications for exercise prescription. *Circulation* 2004;110(17):822A.

- A108) Knudsen CW, Clopton P, Klemsdal TO, Westheim A, Wu A, Abraham WT, Storrow AB, McCord JK, Nowak RM, **McCullough PA**, Omland T. Predictors of absence of heart failure in patients with elevated B-type natriuretic peptide levels. 2004;110(17)368A.
- A109) Daniels LB, Clopton P, Hollander JE, Guss D, **McCullough P**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalia MA, Bhalia V, Jesse R, Maisel A. Effect of ethnicity on likelihood of admission for heart failure. J Am Coll Cardiol 2005;45(3)168A.
- A110) **McCullough PA**, Brown WW, McGill JB, Collins AJ, Chen SC, Li S, Singh AK, Narva AS, Herman WH, Bakris GL, Jurkovitz CT, Norris KC, Pergola P, Klag MJ, for the KEEP Investigators. Independent components of chronic kidney disease as a cardiovascular risk factor; results from the Kidney Early Evaluation Program (KEEP). J Am Coll Cardiol 2005;45(3)424A.
- A111) **McCullough PA**, Klag MJ, McGill JB, Collins AJ, Chen SC, Li S, Singh AK, Narva AS, Herman WH, Bakris GL, Jurkovitz CT, Norris KC, Pergola P, Brown WW, for the KEEP Investigators. Age over 30 becomes a cardiovascular risk factor in patients screened for chronic kidney disease, results from the Kidney Early Evaluation Program (KEEP). J Am Coll Cardiol 2005;45(3)434A.
- A112) Daniels LB, Clopton P, Chiu A, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Wu AHB, Steg G, Westheim A, Knudsen CW, Hermann HC, **McCullough PA**, Maisel AS. Using B-type natriuretic peptide to diagnose heart failure in obese patients. J Am Coll Cardiol 2005;45(3)141A.
- A113) Trivax JE, Gallagher MJ, Alexander DV, deJong AT, Kasturi G, Sandberg KR, Jafri SM, Krause KR, Chengelis DL, Moy J, Franklin BA, **McCullough PA**. Poor aerobic fitness predicts complications associated with bariatric surgery. CHEST 2005;128(4)282S.
- A114) Miller WM, Nori KE, Sandberg KR, Vial C, VanderLinden M, **McCullough PA**. Change in C-reactive protein levels with weight loss following gastric bypass surgery. Circulation 2005;111(14) P213.
- A115) Moy J, Gallagher M, de Jong A, Sandberg K, Trivax J, Alexander D, Kasturi G, Jafri S, Krause K, Chengelis D, Franklin B, **McCullough P**. Preoperative cardiopulmonary fitness predicts surgical complications after laparoscopic roux-en-Y gastric bypass surgery for morbid obesity. Obesity Research 2005;13, A14 (54-OR).
- A116) Nori Janosz K, Koenig K, Leff C, Miller W, **McCullough P**. How much weight needs to be lost to resolve type 2 diabetes? Obesity Research 2005;13, A59 (229-P).
- A117) Odom J, Ferrara M, **McCullough P**, Miller W. The effect of behavioral group attendance on weight loss while participating in an out-patient, hospital-based, meal replacement program. Obesity Research 2005;13, A144 (557-P).

- A118) Miller W, Veri S, Odom J, Lillystone M, Gibbs D, **McCullough P**. Effects of a short-term multidisciplinary program for childhood obesity. *Obesity Research* 2005;13, A84 (328-P).
- A119) Odom J, Ferrara M, **McCullough P**, Miller W. The effect of psychosocial factors on weight loss during an out-patient, hospital-based, meal replacement program. *Obesity Research* 2005;13, A69 (267-P).
- A120) Vanhecke TE, Miller WM, Franklin BA, Weber JE, **McCullough PA**. Differences in health awareness knowledge, environmental tobacco smoke exposure (ETS), and body-shape perception among adolescents based upon body mass index. *J Am Coll Cardiol* 2006;47(4) 247A.
- A121) Duru K, Jurkovitz C, Narva A, McGill J, Bakris G, Chen SC, Lu S, Pergola P, **McCullough P**, Singh A, Klag M, Collins A, Brown W, Norris K. Racial and gender differences in hypertension control and chronic kidney disease: results from the Kidney Early Evaluation Program (KEEP). *NKF 2006 Spring Clinical Meetings*; 245: P101.
- A122) Conklin A, de Jong A, **McCullough PA**, Franklin B. Cardiorespiratory Fitness: Relation to Body Mass Index among the Morbidly Obese and Superobese. *Med Sci Sports Exerc.* 2006 May;38(5 Suppl):S84-5.
- A123) Miller WM, Khazaal N, Nori-Janosz K, Franklin B, Vial C, Kaitner R, **McCullough P**. Advantages of group treatment and exercise promoting short-term weight loss in obese adults. *Obesity* 2006;14(Suppl):A157.
- A124) **McCullough PA**. Which Types and Which Amount of Physical Activities to Achieve and Maintain a Healthy Body Weight? 4<sup>th</sup> Metabolic Syndrome, Type II Diabetes, and Atherosclerosis Congress (MSDA), 2007, AL-18, p 23.
- A125) Vanhecke TE, **McCullough PA**, Trivax J, DeJong A, Franklin BA. Energy Expenditure, Epicardial Adipose Tissue and Cardiorespiratory Fitness in Morbidly Obese Adults: 2154: Board #67 June 1 8:00 AM - 9:30 AM. *Med Sci Sports Exerc.* 2007 May;39(5 Suppl):S385.
- A126) Miller WM, Veri S, Odom J, Lillystone M, Washington T, **McCullough PA**, Franklin BA. Dietary behaviors and knowledge among urban pre-adolescents: 1581: board #71 may 30 3:30 PM - 5:00 PM. *Med Sci Sports Exerc.* 2007 May;39(5 Suppl):S247.
- A127) DeJong AT, **McCullough P**, Franklin B. Use of VE/VCO<sub>2</sub> slope Corrected for Peak VO<sub>2</sub> as a Predictor of Post-Surgical Complications in Morbidly Obese Patients: 686: May 31 8:30 AM 8:45 AM. *Med Sci Sports Exerc.* 2007 May;39(5 Suppl):S40.
- A128) Zalesin KC, Krause KR, Chengelis DL, **McCullough PA**. Determinants of the Resolution of Type 2 Diabetes after Bariatric Surgery. *American Society of Bariatric Surgery. Surgery for Obesity and Related Disorders* 3(3):314; 2007.

- A129) Kadaj P, Vanhecke T, Barnes MA, Lazar MH, Gandhi M, **McCullough, PA**. Natriuretic peptide testing and APACHE II scores for the evaluation and prediction of outcome in acutely ill patients: a prospective cohort study. *Chest* 2007;132(4) 551S.
- A130) Agrawal V, Khan I, Rai B, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA**. Weight loss after bariatric surgery reduces albuminuria in obese adults with diabetes. *J Am Soc Nephrol*, Oct 2007; 18: 574A.
- A131) Agrawal V, Rai B, Khan I, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA**. Weight loss after bariatric surgery reduces albuminuria in obese adults. *J Am Soc Nephrol*, Oct 2007; 18: 767A.
- A132) O'Donoghue M, Sabatine M, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F. The benefit of early invasive strategy in women versus men with non-ST-elevation acute coronary syndromes: a collaborative meta-analysis of randomized trials. *Circulation* 2007;116(16);II-383.
- A133) Boerrigter G, Costello-Boerrigter LC, Abraham WT, St. John Sutton, MG, Heublein D, Kruger KM, Hill MR, **McCullough PA**, Burnett JC. Cardiac resynchronization therapy with biventricular pacing improves renal function in heart failure patients with reduced glomerular filtration rate. *Circulation* 2007;116(16);II-405.
- A134) Deliri H, Davis E, Hager CS, Welch CA, Malik FS, **McCullough PA**, Wagner GS, Carter WH. A prospective randomized trial of blood B-type natriuretic peptide levels informing management after elective coronary artery bypass surgery. *Circulation* 2007;116(16);II-683.
- A135) **McCullough PA**, Li S, Collins AJ, Chen SC, Jurkovitz CT, Norris KC, McFarlane S, Johnson B, Shlipak M, Obialo C, Brown WW, Vassaloti J, Bakris GL, for the KEEP Investigators. Chronic kidney disease and risk for premature cardiovascular disease. *Circulation* 2007;116(16);II-852.
- A136) **McCullough PA**, Leifer E, Ellis S, Rendall DS, Horwich T, Hill JA, Fonarow GC. Relationship between renal function and cardiopulmonary fitness in patients with systolic heart failure. *J Am Coll Cardiol* 2008;51(10)A52-53.
- A137) O'Donoghue, Boden WE, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F, Sabatine MS. The benefit of an invasive strategy in diabetic versus non-diabetic subjects with non-ST segment elevation acute coronary syndromes; a collaborative meta-analysis of randomized trials. *J Am Coll Cardiol* 2008;51(10)A216.
- A138) **McCullough PA**, Li S, Jurkovitz CT, Stevens LA, Wang C, Collins AJ, Chen SC, Norris KC, McFarlane S, Johnson B, Shlipak MG, Obialo CI, Brown WB, Vassalotti JA, Whaley-Connel AT, for the KEEP Investigators. Chronic kidney disease and cardiovascular disease in volunteer and

randomly selected populations: KEEP and NHANES. Am J Kidney Dis 2008;51(4)B68.(Abstract #162)

- A139) McFarlane SI, Chen SC, Whaley-Connell A, Sowers J, Vassalotti JA, Salifu MO, Li S, Wang C, Bakris G, **McCullough PA**, Collins AJ, Norris K for the KEEP Investigators. Racial and gender differences in prevalence and predictors of anemia of chronic kidney disease: KEEP and NHANES 1999-2004. Am J Kidney Dis 2008;51(4)B68. (Abstract #163)
- A140) Pavey BS, Saab G, McFarlane SI, Sowers JR, Chen S, Li S, Vassalotti J, Collins AJ, Norris K, **McCullough PA**, Bakris G, Whaley-Connell A, for the KEEP Investigators. Prevalent components of cardiometabolic syndrome and cardiovascular disease from the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis 2008;51(4)B79. (Abstract #207)
- A141) Agrawal V, Vanhecke TE, Franklin BA, Zalesin KC, Sangal RB, Hakmeh B, deJong AT, **McCullough PA**. Albuminuria in obese adults is associated with hypertension and sleep disturbance. Am J Kidney Dis 2008;51(4)B29. (Abstract #5)
- A142) Vassalotti JA, Uribarri J, Chen SC, Li S, Wang C, Collins AJ, Calvo MS, Whaley-Connell A, Norris KC, **McCullough PA**, Andress DL, for the KEEP Investigators. Trends in mineral metabolism in the kidney early evaluation program (KEEP). Am J Kidney Dis 2008;51(4)B52. (Abstract #75)
- A143) Agrawal V, Krause KR, Chengelis DL, Zalesin K, Rocher L, **McCullough PA**. Relation between degree of weight loss after bariatric surgery and reduction in high sensitivity C-reactive protein. Surgery for Obesity and Related Diseases 2008;3(4)324.(Abstract P33)
- A144) Odom J, Washington TL, Zalesin K, **McCullough PA**, Hakmeh B. Psychosocial trends related to weight regain after bariatric surgery. Surgery for Obesity and Related Diseases 2008;3(4)324.(Abstract BH-04)
- A145) **McCullough PA**. New insights on accelerated vascular calcification in patients with kidney disease. J Heart Dis 2008;(6):121 (Abstract 482).
- A146) Agrawal V, Ghoshi AK, Barnes MA, **McCullough PA**. Perception of indications for nephrology referral among internal medicine residents. A national online survey. J Am Soc Neph 2008;19:812-13A (SA-PO3091).
- A147) Agrawal V, Swami A, Al-Sabbagh M, Kosuri R, Samarapungavan D, **McCullough PA**. Contrast induced acute kidney injury in renal transplantation recipients undergoing cardiac catheterization. J Am Soc Neph 2008;19:986-87A (PUB766).
- A148) Agrawal V, Agarwal M, Barnes MA, Ghosh AK, **McCullough PA**. Internal medicine resident's knowledge of chronic kidney disease complications and management: a national survey. NKF 2009 Spring Clinical Meetings; 43: I22.

- A149) Li S, Chen SC, Vassaloti J, Norris K, **McCullough PA**, Bakris G, Collins A. Predictors of self-referred repeat CKD screening in the Kidney Early Evaluation Program (KEEP). NKF 2009 Spring Clinical Meetings; 48: 142.
- A150) Whaley-Connell, Sowers JR, **McCullough PA**, Roberts T, McFarlane SI, Chen SC, Li S, Wang C, Collins AJ, Bakris GL, and the Kidney Early Evaluation Program Investigators. Diabetes mellitus and CKD awareness: the Kidney Early Evaluation Program and the National Health and Nutrition and Examination Survey. NKF 2009 Spring Clinical Meetings; 52: 160.
- A151) Kalatzidis R, Li S, Wang C, Chen SC, **McCullough PA**, Bakris G. Hypertension in early-stage kidney disease: an update from the kidney early evaluation program. NKF 2009 Spring Clinical Meetings; 80: 1170.
- A152) Agrawal V, Agarwal M, Samarapungavan D, **McCullough PA**. Long term outcomes of contrast induced acute kidney injury in renal transplant recipients. NKF 2009 Spring Clinical Meetings; 83: 1184.
- A153) **McCullough PA**, Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Johnson BC, Calhoun D, Jurkovitz C, McFarlane S, Obialo C, Shlipak M, Sowers J, Stevens L, Vassalotti JA, Bakris GL. Cardiovascular risk modification in chronic kidney disease patients with coronary disease: results from the Kidney Early Evaluation Program (KEEP). J Am Coll Cardiol 2009;53(10):A224.
- A154) Kosiborod M, **McCullough PA**, Rao S, Inzucchi SE, Maddox TM, Masoudi FA, Xiao L, Fiske S, Spertus JA. Hyperglycemia and risk of acute kidney injury after coronary angiography in patients hospitalized with acute myocardial infarction. J Am Coll Cardiol 2009;53(10):A382.
- A155) Miller WM, Veri S, **McCullough PA**, Franklin BA. Children improve nutritional knowledge, increase physical activity and reduce body mass through a multidisciplinary school intervention. Poster: 2009 American College of Sports Medicine Annual Meeting; 2009 May 27; Seattle, WA. Medicine and Science in Sports and Exercise 2009;41(5):S1543.
- A156) Zalesin, KC, Franklin BA, Lillystone M, Shamoun T, Krause K, Chengelis D, Mucci S, Shaheen KW, **McCullough PA**. Differential loss of fat and lean mass in the morbidly obese after bariatric surgery. Surgery for Obesity and Related Diseases 2009;5: S29 (poster) awarded Outstanding Poster Recognition
- A157) Miller WM, Franklin BA, Veri S, Maaz Y, Jameel J, **McCullough PA**. Is degree of obesity associated with childhood obesity treatment outcomes? Poster: The Obesity Society's Annual Scientific Meeting; 2009 Oct 26; Washington, DC. Obesity 2009;17(2):S184
- A158) Trivax JE, Franklin BA, Goldstein JA, Chinnaiyan KM, Gallagher MJ, deJong AT, Colar JM, Haines DE, **McCullough PA**. Acute cardiac effects of marathon running: evidence for right heart overload. Circulation 2009;120 (18): S513

- A159) Amin AP, Riley K, Spertus JS, Venkitachalam L, Stolker JM, **McCullough PA**, Masoudi FA, Jones PG, Kosiborod M. Trends in the prevalence of acute kidney injury in patients with acute myocardial infarction. *J Am Coll Cardiol* 2010;55 (10): A102 (1046-282)
- A160) Agrawal V, Garimella PS, Jaar BG, Plantinga L, Ye J, **McCullough PA**. Access to health care in adults evaluated for chronic kidney disease: findings from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P35.
- A161) Bomback AS, Kshirsagar AV, Whaley-Connell AT, Chen SC, Li S, Klemmer PJ, **McCullough PA**, Bakris GL. Racial differences in kidney function among individuals with obesity and metabolic syndrome: results from the Kidney Early Evaluation Program (KEEP). NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P45.
- A162) Saab G, Whaley-Connell A, Chen SC, Li S, Sowers JR, Norris K, Bakris G, **McCullough PA**. The association of serum phosphorus and pulse pressure in men and women with chronic kidney disease: data from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P80.
- A163) **McCullough PA**, Brown J, Weisbord S. The effects of iso-osmolar contrast media on contrast-induced acute kidney injury: a meta-analysis. *Cath Cardiovasc Interv* 2010;75(6):S78, B-034.
- A164) **McCullough PA**, Capasso P. Patient discomfort associated with the use of intravascular iodinated contrast media: a meta-analysis of comparative randomized trials. *Cath Cardiovasc Interv* 2010;75(6):S80, B-037.
- A165) Miller WM, Spring TJ, Zalesin KC, Kaeding K, deJong AT, **McCullough PA**, Franklin BA. Resting metabolic rate is directly associated with cardiorespiratory fitness in the morbidly obese. Poster: AHA Annual Conference on Nutrition, Physical Activity and Metabolism; 2010 March 2; San Francisco, CA. *Circulation* 2010 March; Suppl. Page 114, Poster P75.
- A166) Miller WM, So NC, Zalesin KC, Spring TJ, Kaeding K, Krause K, Chengelis D, deJong AT, Franklin BA, **McCullough PA**. Low resting metabolic rate is associated with low cardiorespiratory fitness, low vitamin D and hyperuricemia in bariatric surgery patients. Poster P-41: 27<sup>th</sup> Annual Meeting of the American Society for Metabolic and Bariatric Surgery; 2010 June 24; Las Vegas, NV. *Surgery for Obesity and Related Diseases* 2010;6:S41.
- A167) Spring TJ, Franklin BA, **McCullough PA**, Miller W, Zalesin K, Kaeding K, deJong AT. Reduced resting oxygen consumption in the morbidly obese: Implications for exercise prescription. Poster: AHA Annual Conference on Nutrition, Physical Activity and Metabolism; 2010 March 2; San Francisco, CA. *Circulation* 2010 March; Suppl. Page 102, Poster P29.

- A168) Vanhecke TE, Franklin BA, Soman P, Lahiri A, Mieres JH, Sias T, Calnon D, Wolinsky D, Beller G, Burnham K, Conway L, Wight J, Walsh M, Daher E, Heller G, Udelson JE, **McCullough PA**. Influence of Myocardial Ischemia on Outcomes in Patients with Systolic Versus Non-Systolic Heart Failure. *Journal of the American College of Cardiology* Volume 57, Issue 14, Supplement, 5 April 2011, Page E2015. Best Fellow-in-Training Poster.
- A169) Babyev R, Whaley-Connell A, Kshirsaga AV, Navaneethan S, Chen SC, Li S, **McCullough PA**, Bakris GL, Bomback AS, for the KEEP Investigators. Race does not influence ESRD and mortality in obese patients with CKD stages 3-4: results from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P55.
- A170) Bose S, Mehta NN, Chen SC, **McCullough PA**, for the KEEP Investigators. Poor glycemic control but not dyslipidemia is associated with albuminuria in patients with CKD and type 2 diabetes mellitus: a Kidney Early Evaluation Program report. NKF 2011 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P56.
- A171) Whaley-Connell A, Saab G, Szpunar S, Stevens L, Shlipak M, Bomback A, Tamura MK, McFarlane S, Li S, Chen SC, Collins A, Norris K, Bakris G, **McCullough, PA**, for the KEEP Investigators. Disease state awareness, kidney disease, and relationship to ESRD and death. NKF 2011 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P121.
- A172) Shah A, Fried L, Chen SC, Qiu Y, Li S, Cavanaugh K, Norris KC, Whaley-Connell AT, **McCullough PA**, Mehrotra R. Associations between access to care and awareness of chronic kidney disease. NKF 2012 Spring Clinical Meetings, Washington, DC, May 9-13, 2012, P170.
- A173) Akrawinthawong K, Shaw M, Kachner J, Apostolov E, Basnakian A. Shah S, Tilak J, **McCullough PA**. Urine catalytic iron and neutrophil gelatinase associated lipocalin as companion early markers of acute kidney injury after cardiac surgery: a prospective pilot study. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P02. *Am J Kidney Disease* 2013;61(4):A1.
- A174) Mehrotra R, Chen SC, Kestenbaum B, Peralta C, Saab G, Sachs M, Shah A, Li S, Norris K, Whaley-Connell A. **McCullough PA**. Serum phosphorus and death or progression to end-stage renal disease in persons screened in the community for chronic kidney disease. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P149. *Am J Kidney Disease* 2013;61(4):A7.
- A175) Amin A, Chen SC, Kosiborod M, Whaley-Connell A, Li S, **McCullough PA**. Synergistic relationship between eGFR and microalbuminuria in predicting long-term progression to ESRD or death in patients with piabetes: results from KEEP. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P176. *Am J Kidney Disease* 2013;61(4):A8.
- A176) Jurkovitz C, Li S, Norris K, Saab G, Bomback A, Whaley-Connell A, **McCullough PA**. Association Between Lack of Health Insurance and Risk of Death and ESRD: Results from the



Kidney Early Evaluation Program (KEEP). NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P135. Am J Kidney Disease 2013;61(4):A6.

- A177) Larsen TR, Singh G, Velocci V, **McCullough PA**. Bioimpedence and fluid overload in patients admitted to the intensive care unit for sepsis syndromes. Blood Purif 2013;35:241.
- A178) Manatsathit W, Al-Hamid H, Gill B, Leelasinjaroen P, Hashmi U, Barawi M, **McCullough P**. Experience in the management of upper gastrointestinal bleeding and outcomes in patients taking dabigatran compared with warfarin: a retrospective, comparative study. Am J Gastroenterol 2013; 108:S464-S465.
- A179) Fried LF, Emanuele N, Hongyuan Zhang J, Brophy M, Conner T, Duckworth W, Leehey DJ, **McCullough PA**, O'Connor TZ, Palevsky PM, Reilly RF, Seliger SL, Warren S, Watnick S, Peduzzi P, Guarino P. Combined Angiotensin Inhibition for Treatment of Diabetic Nephropathy: VA Nephron-D Trial. HI-OR03 J Am Soc Nephrol 24: 2013.
- A180) Kumar N, **McCullough PA**. Epidemiology of Cardiovascular Mortality in Patients with Chronic Kidney Disease and End-Stage Renal Disease. SA-PO235 J Am Soc Nephrol 24: 2013.
- A181) Khan S, **McCullough PA**, Chawla LS, Beaver TM, Bennett Guerrero E, Wang D, Houser MT. M13-796 Study Design – A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and Efficacy Trial of Multiple Dosing Regimens of ABT-719 for Prevention of Acute Kidney Injury in Patients Undergoing High Risk Cardiac Surgeries. PUB013, J Am Soc Nephrol 24: 2013.
- A182) Larsen T, Kinni V, Zaks J, David S, **McCullough P**. A Lethal Case of Influenza and Type 5 Cardiorenal Syndrome. Crit Care Med 2013;41(12 Suppl.):1296.
- A183) Akrawinthewong K, Parker G, Stivers D, Cannon L, Dixon S, Ricci J, Kupfer K, Alexander P, David S, **McCullough PA**. Subclinical and clinical contrast-induced acute kidney injury: results from the ENCINO Study. Am J Kidney Dis 2014;63(5):A23
- A184) Palazzuoli A, Pellegrini M, Ruocco G, Martini G, Franci B, Campagna MS, Gilleman M, Nuti N, **McCullough PA**, Ronco C. Continuous versus bolus intermittent loop diuretic infusion in acutely decompensated heart failure: a prospective randomized trial. European Heart Journal 2014; 35:386; Suppl 1; Meeting Abstract: 2226; European Society of Cardiology Congress, Barcelona, Spain, 2014
- A185) Shin HJ, **McCullough PA**, Li S, Cho E, Rimm E, Rosner B, Manson JE, Hu FB. The Association Between Diet Quality After Diabetes Diagnosis and Major Cardiovascular Events in Women With Type 2 Diabetes Mellitus. Circulation. 2014;130:A17257
- A186) Oudiz R, Meyer C, Chin M, Feldman J, Goldsberry A, McConnell J, **McCullough P**, O'Grady M, Tapson V, Torres F, Waxman A, White R. Initial Data Report from "LARIAT": A Phase 2 Study of

Bardoxolone Methyl in PAH Patients on Stable Background Therapy. Chest 2015;148(4\_MeetingAbstracts):639A. doi:10.1378/chest.2345856

- A187) **McCullough PA**, Spinowitz B. Novel Agents for the Prevention and Management of Hyperkalemia. Journal of Managed Care and Speciality Pharmacy, Supplement 21 (10-a), October 2015: E23.
- A188) Haase VH, Hartman CS, Maroni BJ, Farzaneh-Far R, **McCullough PA**. Vadadustat, a Novel Oral Treatment for Anemia of Chronic Kidney Disease, Maintains Stable Hemoglobin Levels in Dialysis Patients Converting from Erythropoiesis-Stimulating Agents. SA-PO1110 J Am Soc Nephrol 26: 2015.
- A189) Palazzuoli A, Ruocco G, Pellegrini M, Franci B, Campagna MS, Nuti R, Ronco C, **McCullough PA**. Impact of loop diuretic infusion modalities on congestion signs and outcomes in patients with acute heart failure. European Heart Journal 2015; 36:672, Suppl 1 Meeting Abstract: P3791; European Society of Cardiology Congress, London, UK 2015.
- A190) Haase V, Hartman C, Maroni B, Farzaneh-Far R, **McCullough P**. Vadadustat Maintains Stable Hemoglobin Levels in Dialysis Patients Converting from Erythropoiesis-Stimulating Agent (ESA). Poster 171. NKF Spring Clinical Meetings, 2016.
- A191) Munkres AG, Vasudevan A, Shin HJ, Sarmast SA, **McCullough PA**. Abstract 212: Integration of Multiple Cardiac Biomarkers into a Disease-Specific Score: Relationship to Clinical Status and Therapeutic Intensity. Circulation: Cardiovascular Quality and Outcomes, March, 2016.
- A192) Tecson K, Silver M, Brune S, Cauthen C, Kwan M, Schussler J, Vasudevan A, Watts J, **McCullough PA**. Impact of Enhanced External Counterpulsation on Heart Failure Rehospitalization Among Patients with Ischemic Cardiomyopathy. J Am Coll Cardiol. 2016;67(13\_S):1545. doi:10.1016/S0735-1097(16)31546-7.
- A193) Prasad A, Morales J, Williams K, Sohn A, Levin D, Khan A, **McCullough P**, Mehran R, Bailey S. Contemporary Practice Patterns Related to the Risk of Acute Kidney Injury in the Catherization Laboratory: Results from an International Survey of Society of Cardiovascular Angiography and Intervention (SCAI) Cardiologists. Journal of the American College of Cardiology Volume 67, Issue 13, Supplement, 5 April 2016, Page 322
- A194) Mazimba S, **McCullough P**, Rosner M, Mejia-Lopez E, Bilchick K. Changes in Renal Perfusion Pressure During Hemodynamically Guided Therapy is Associated with Worsening Renal Function. Journal of the American College of Cardiology Volume 69, Issue 11, Supplement, 21 March 2017, Page 768
- A195) Mazimba S, Welch T, **McCullough P**, Breathett K, Tallaj J, Bergin J, Kennedy J, Smith L, Abuannadi M, Bilchick B. Systemic Arterial Pulsatility Index (SAPI) Predicts Adverse Outcomes in

Advanced Heart Failure Patients. Journal of the American College of Cardiology Volume 69, Issue 11, Supplement, 21 March 2017, Page 856

- A196) Vasudevan A , **McCullough PA**, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Schiffmann R, Bottiglieri T. Abstract 104: Urinary 11-Dehydro-Thromboxane B2 and Mortality in Patients with Stable Coronary Artery Disease. Scientific Poster Abstracts Selected for the 2016 Congress on Atherosclerotic Cardiovascular Disease Prevention, Sept. 16-18, 2016, Boca Raton, Florida., Clin Cardiol. 2016 Sep;39 Suppl 1:4-18. doi: 10.1002/clc.22597.
- A197) Tecson KM, Hamman BL, Choi JW, Garg P, Olugbode OA, Schussler JM, Stoler RC, Vasudevan A, Velasco CE, **McCullough PA**. Abstract 15609: The Effect of Contrast-Induced Acute Kidney Injury in High Risk Patients Undergoing Cardiac Surgery. Circulation. 2016;134(Suppl 1).
- A198) Ballantyne CM, **McCullough PA**, Sanganalmath SK , Koren A, Letierce A, Davidson MH. Safety and Efficacy of Alirocumab in Patients With Atherosclerotic Cardiovascular Disease, Based on Statin Intensity: Pooled Analyses of 5 Placebo-controlled Phase 3 Trials. Circulation. 2016;134:A16873.
- A199) Pergola PE, Spinowitz BS, **McCullough PA**, Singh B, Menoyo JA, Lavin PT, Rasmussen HS, Fishbane S. Effect of Sodium Zirconium Cyclosilicate Treatment for Hyperkalemia on Blood Pressure in a Long-Term Open-Label Phase 3 Study. J Am Soc Nephrol 27: 2016 (TH-PO478).
- A200) Golestaneh L, Gaber AO, Kalim S, **McCullough PA**, Germain MJ. Neutrophil Gelatinase-Associated Lipocalin (NGAL) Correlates to AKI Stage in ICU Patients. J Am Soc Nephrol 27: 2016 (TH-PO643).
- A201) Kalim S, Gaber AO, Golestaneh L, Germain MJ, **McCullough PA**. Multi Center ICU Study Finds NGAL Increases Rate of AKI Detection. J Am Soc Nephrol 27: 2016 (TH-PO667).
- A202) Haase VH, Khawaja Z, Chan J, Zuraw Q, Farzaneh-Far R, Maroni BJ, **McCullough PA**. Vadadustat Maintains Hemoglobin (Hb) Levels in Dialysis-Dependent Chronic Kidney Disease (DD-CKD) Patients Independent of Systemic Inflammation or prior Dose of Erythropoiesis-Stimulating Agent (ESA). J Am Soc Nephrol 27: 2016 (TH-PO960).
- A203) Bottiglieri T, Vasudevan A, Lopez LR, Swift C, Schiffmann R, **McCullough P**. Increased F2-Isoprostane Oxidative Stress in Coronary Artery Disease (CAD) Patients with Poor Aspirin-Induced Thromboxane A2 Inhibition. 84th European Atherosclerosis Society (EAS) Congress, Innsbruck, Austria, May 29-June 1, 2016.
- A204) Winkelmayr W, Block G, Chertow G, Fishbane S, Komatsu Y, **McCullough P**, Pergola P, Rosenberger C, Williamson D, Yee J, Collins A, Khawaya Z, Sharma A, Zuraw Q, Maroni B. The INNO2VATE Phase 3 Program of Vadadustat for Treatment of Anemia in Dialysis-Dependent CKD: Rationale and Study Design. Poster 173. NKF Spring Clinical Meetings, 2017.

- A205) Lopez LR, Vasudevan A, Sathyamoorthy M, Schussler JM, Velasco C, Swift C, Schiffmann R, Bottiglieri T, **McCullough, PA**. Relationship of platelet thromboxane inhibition by aspirin and all-cause mortality in patients with stable coronary artery disease. 85<sup>th</sup> European Atherosclerosis Society (EAS) Congress, SAG007, pg 90, Prague, Czech Republic, April 24-26, 2017
- A206) Oudiz RJ, Meyer C, Chin M, Feldman J, Goldsberry A, McConnel JW, **McCullough PA**, O'Grady M, Tapson VF, Torres F, Waxman A, White J. Results of Interim Analysis of the Efficacy and Safety of Bardoxolone Methyl in Patients with Pulmonary Arterial Hypertension Associated with Connective Tissue Disease (CTD) (The LARIAT Study) American Journal of Respiratory and Critical Care Medicine 2017;195:A6896 [http://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2017.195.1\\_MeetingAbstracts.A6896](http://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2017.195.1_MeetingAbstracts.A6896)
- A207) **McCullough PA**, Weir MR, deGoma EM, Zuraw Q, Sharma A, Luo W, Middleton J. Vadadustat does not prolong corrected QT interval in a thorough QTC study in healthy subjects. MP418. 54<sup>th</sup> ERA-EDTA Congress, Madrid, Spain, June 3-6, 2017. [www.era-edta2017.org](http://www.era-edta2017.org)
- A208) Meyer C, Warnock D, Chin M, Goldsberry A, **McCullough P**, O'Grady M, Toto R, Ward K, Block G, Pergola P. MP142 A Phase 2/3 Study of the Efficacy and Safety of Bardoxolone Methyl in Patients with Alport Syndrome. Nephrology Dialysis Transplantation, Volume 32, Issue suppl\_3, 1 May 2017, Pages iii480.
- A209) **McCullough PA**, Uhlig K, Neylan JF, Fishbane S. Safety and Efficacy of Ferric Citrate in Patients with Nondialysis-Dependent Chronic Kidney Disease and Iron Deficiency Anemia: Post Hoc Analysis in Patients with or Without Heart Failure. Journal of Cardiac Failure, August 2017, Volume 23, Issue 8, Supplement, Pages S64–S65.
- A210) **McCullough PA**, David G, Todoran T, Brilakis ES, Ryan MP, Gunnarsson C. Iso-Osmolar Contrast Media and Adverse Renal and Cardiac Events after Percutaneous Cardiovascular Intervention. Poster accepted for presentation at ISPOR 20th Annual European Congress, November 4-8, 2017, Glasgow, Scotland, *Value in Health*, 2017.
- A211) Fried L, Emanuele N, Huang Y, Zhang JH, Palevsky PM, Johnson GR, Seliger SL, **McCullough PA**, Conner TA, Brophy M. ESRD and Mortality after VA NEPHRON-D. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: TH-PO717
- A212) Block GA, Pergola PE, Inker L, **McCullough PA**, Chin M, Meyer CH, Rheault MN, Kashtan C, Warnock DG. Initial Data Report from “CARDINAL”: A Phase 2/3 Study of Bardoxolone Methyl in Patients with Alport Syndrome. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: FR-PO1053
- A213) Fishbane S, Adler SH, Singh B, Lavin PT, **McCullough PA**, Kosiborod M, Pergola PE, Packham DK, Roger SD, Lerma EV, Butler J, Von haehling S, Spinowitz BS, Block GA. Maintained Efficacy and Safety of Sodium Zirconium Cyclosilicate for Hyperkalemia: 12-Month, Open-Label, Phase 3

Study, American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: TH-PO1112

- A214) Packham DK, **McCullough PA**, Kosiborod M, Spinowitz BS, Fishbane S, Pergola PE, Lerma EV, Butler J, Von haehling S, Adler SH, Singh B, Lavin PT. Efficacy and Safety of Short-Term Treatment with Sodium Zirconium Cyclosilicate (ZS-9) for Hyperkalemia: Open-Label, Phase 3 Trial. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: FR-PO1074
- A215) **McCullough PA**, Pergola P, Fishbane S, von Haehling S, Roger S, Adler S, Singh B, Lavin P, Butler J, Block G, Lerma E, Packham D, Kosiborod M. Efficacy and Safety of Sodium Zirconium Cyclosilicate to Treat Hyperkalemia Among Patients Taking Renin–Angiotensin–Aldosterone System Inhibitors in a 12-Month, Open-Label, Phase 3 Study: A Post Hoc Subgroup Analysis. *Circulation*. 2017;136:A16610
- A216) Ambrosy AP, Mulder H, Coles A, Krauss WE, Lam CS, **McCullough PA**, Pina I, Tromp J, Whellan DJ, O'Connor C, Mentz RJ. Renal Function and Exercise Training in Ambulatory Heart Failure Patients With a Reduced Ejection Fraction - Findings From the HF-ACTION Randomized Controlled Trial. *Circulation*. 2017;136:A17039
- A217) Tecson KM, Kluger AY, DiMario S, Harrison D, **McCullough PA**. Abstract 131: Recurrent acute cardiovascular events and statin use. *Circ: Cardiovasc Qual Outcomes*. 2018;11(Suppl 1):A131 LP – A131. [http://circoutcomes.ahajournals.org/content/11/Suppl\\_1/A131.abstract](http://circoutcomes.ahajournals.org/content/11/Suppl_1/A131.abstract).
- A218) Roger S, Lavin P, Lerma E, **McCullough PA**, Butler J, Spinowitz B, von Haehling S, Kosiborod M, Adler S, Fishbane S, Packham D. Safety and Efficacy of Sodium Zirconium Cyclosilicate for Long-Term Treatment of Hyperkalaemia in Patients with Chronic Kidney Disease: Results From an Open-Label, Phase 3 Study. FP071, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A219) Rossing P, Block GA, Chertow GM, Chin M, Goldsberry A, **McCullough PA**, Meyer CJ, Packham D, Spinowitz B, Sprague SM, Warnock DG, Pergola PE. Effect of Bardoxolone Methyl Treatment on Urinary Albumin in Patients with Type 2 Diabetes and Chronic Kidney Disease – Post-Hoc Analysis from BEAM and BEACON. FP152, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A220) Meyer CJ, Chakinala MM, Chin MP, Coyne DW, Feldman J, Goldsberry A, **McCullough PA**, O'Grady M, Torres F, Oudiz RJ, Ward K, White RJ. Two-Year Durability of Improvements In eGFR with Bardoxolone Methyl in Patients with Pulmonary Arterial Hypertension: The LARIAT Study. FP804, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A221) Barker CM, Van Houten J, Mehta H, Cord D, Gunnarsson, Mollenkopf S, Verta P, **McCullough PA**. The Healthcare Burden of Disease Progression in Medicare Patients with Functional Mitral

Regurgitation. J Am Coll Cardiol March 12, 2019, 73 (9 Supplement 1) 1051;  
DOI:10.1016/S0735-1097(19)31658-4

A222) Cork DP, Mehta H, Barker CM, Verta P, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, Van Houten J, **McCullough PA**. The Economic Impact of Mitral Regurgitation, on Medically Managed Incident Heart Failure. J Am Coll Cardiol March 12, 2019, 73 (9 Supplement 1) 1130;  
DOI:10.1016/S0735-1097(19)31737-1

A223) Cork DP, Mehta H, Barker CM, Verta P, Ryan MP, Baker E, Gunnarsson C, Mollenkopf S, Van Houten J, **McCullough PA**. The Impact of Mitral Regurgitation on Mortality and Heart Failure Admissions in Newly Diagnosed Heart Failure. J Am Coll Cardiol March 12, 2019, 73 (9 Supplement 1) 1131; DOI:10.1016/S0735-1097(19)31738-3

A224) **McCullough PA**, Cork DP, Mehta HS, Barker CM, Gunnarsson C, Ryan M, Mollenkopf S, Van Houten J, Verta P. Abstract 151: Therapeutic Intensity in Medically Managed Incident Heart Failure Patients with and without Mitral Regurgitation: A Claims Based Analysis. 4 Apr 2019 [https://doi.org/10.1161/hcq.12.suppl\\_1.151](https://doi.org/10.1161/hcq.12.suppl_1.151) Circulation: Cardiovascular Quality and Outcomes. 2019;12:A151

A225) Van Houten J, Cork D, Mehta H, Barker C, Verta P, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, **McCullough PA**. Therapeutic Intensity Algorithm is Associations with Annual Expenditures in Medically Managed Incident Heart Failure Patients with and without Mitral Regurgitation. ISPOR (The Professional Society for Health Economics and Outcomes Research) New Orleans, LA May 21, 2019 (top 10% award winner).

A226) Barker C, Cork D, **McCullough P**, Mehta H, Van Houten J, Gunnarsson C, Mollenkopf S, Verta P. Survival in Clinically Significant Tricuspid Regurgitation Patients with and without Heart Failure: Evidence from Optum's Integrated Databases. J Am Coll Cardiol March 29, 2020, 71 (11 Supplement 1) 1319; DOI:10.1016/S0735-1097(20)31946-X,  
<https://www.jacc.org/doi/10.1016/S0735-1097%2820%2931946-X>

A227) Mehta H, **McCullough P**, Cork D, Barker C, Van Houten J, Gunnarsson C, Mollenkopf S, Verta P. Medical Therapy in Patients with Functional Mitral Regurgitation: Are Patients Optimized in the Real World? J Am Coll Cardiol March 29, 2020, 71 (11 Supplement 1) 1322;  
DOI:10.1016/S0735-1097(20)31949-5. <https://www.jacc.org/doi/10.1016/S0735-1097%2820%2931949-5>

A228) **McCullough PA**, Mehta H, Barker C, Van Houten J, Mollenkopf S, Gunnarsson C, Ryan M, Cork D. Mortality and Guideline Directed Medical Therapy in Heart Failure Patients with Reduced Ejection Fraction: Evidence from Real World Data. J Am Coll Cardiol May 15, 2021, 77 (18\_Supplement\_1) 670; DOI: 10.1016/S0735-1097(21)02029-  
<https://www.jacc.org/doi/full/10.1016/S0735-1097%2821%2902029-5>

- A229) Tecson KM, Kluger AY, Cassidy-Bushrow AE, Liu B, Coleman CM, Jones LK, Jefferson CR, VanWormer JJ, Xiang P, Habib M, Mues KE, **McCullough PA**. Early Statin Use and Recurrent Major Adverse Cardiovascular Events: A Multicenter Study. *Lipid Management Best Practices*. 2020;14(4): 561. Doi: 10.1016/j.jacl.2020.05.030
- A230) Bottiglieri T, Arning E, Tecson KM, **McCullough PA**. The Plasma Metabolome is Significantly Altered in Hypercholesterolemia. *Circ Res*. 2020;127(12): e272-e284. Doi: 10.1161/RES.0000000000000450
- A231) Hamadeh A, Aldujeli A, Briedis K, Tecson KM, Sanchez JS, Al Dujaili M, Al-Obeidi A, Diez-Gil JL, Zaliunas R, Stoler R, **McCullough PA**. TCT CONNECT-213 Clinical Characteristics and Outcomes of Patients With COVID-19 and STEMI Treated With Fibrinolytic Therapy. *J Am Coll Cardiol*. 2020;76(17):B89–90. doi: 10.1016/j.jacc.2020.09.228.
- A232) **McCullough PA**. (2021) Multifaceted Highly Targeted Sequential Multidrug Treatment of Early Ambulatory High-Risk SARS-CoV-2 Infection (COVID-19). *J Infect Dis Res*, 4(S1): 10.

#### Peer-Reviewed Published Manuscripts

- M1) **McCullough PA**, O'Neill WW. Influence of Regional Cardiovascular Mortality on the Use of Angiography after Acute Myocardial Infarction. *Am J Cardiol* 1997;79:575-80. PMID: 97221465.
- M2) Stewart RE, Miller DD, Bowers TR, **McCullough PA**, Ponto RA, Grines CL, O'Neill WW, Juni JE, Safian RD. PET Perfusion and Vasodilator Function after Angioplasty for Acute Myocardial Infarction. *J Nuc Med* 1997;38:770-777. PMID: 97314102.
- M3) Aliabadi D, Pica MC, **McCullough PA**, Grines CL, Safian RD, O'Neill WW, Goldstein JA. Rapid Bedside Coronary Angiography with a Portable Fluoroscopic Imaging System. *Cathet Cardiovasc Diagn* 1997;41(4):449-455. PMID: 97403128.
- M4) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill WW. Acute Renal Failure after Coronary Intervention: Incidence, Risk Factors, and Relationship to Mortality. *Am J Med* 1997;103:368-375. PMID: 98041552.
- M5) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. Prediction of Death and Neurologic Outcome in the Emergency Department in Out-of-Hospital Cardiac Arrest Survivors. *Am J Cardiol* 1998;81:17-21. PMID: 98122431.
- M6) **McCullough PA**, Ayad O, O'Neill WW, Goldstein JA. Costs and Outcomes of Patients Admitted with Chest Pain and Essentially Normal Electrocardiograms. *Clin Cardiol* 1998;21:22-26. PMID: 98134803.
- M7) **McCullough PA**, Smith GS. Evaluation of Narrative Text for Case Finding: The Need for Accuracy Measurement. *Am J Ind Med* 1998;34:133-136. PMID: 98315422.

- M8) **McCullough PA**, Thompson RJ, Tobin KJ, Kahn JK, O'Neill WW. Validation of a Decision Support Tool for the Evaluation of Cardiac Arrest Victims. *Clin Cardiol* 1998;21:195-200. PMID: 98202866
- M9) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. A Prospective Randomized Trial of Triage Angiography in Acute Coronary Syndromes Ineligible for Thrombolytic Therapy: Results of the Medicine versus Angiography in Thrombolytic Exclusion (MATE) Trial. *J Am Coll Cardiol* 1998;32:596-605. PMID: 98412530.
- M10) Redle JD, Khurana S, Marzan R, **McCullough PA**, Stewart JR, Westveer DC, O'Neill WW, Bassett JS, Tepe NA, Frumin HI. Prophylactic Oral Amiodarone Compared to Placebo for Prevention of Atrial Fibrillation Following Coronary Artery Bypass Surgery. *Am Heart J* 1999;138:144-150. PMID: 10385778.
- M11) Stevens MA, **McCullough PA**, Tobin KJ, Speck JP, Westveer DC, Guido-Allen DA, Timmis GC, O'Neill WW. A Prospective Randomized Trial of Prevention Measures in Patients at High Risk for Contrast Nephropathy: Results of the P.R.I.N.C.E. Study. *J Am Coll Cardiol* 1999;33:403-411. PMID: 99137305.
- M12) **McCullough PA**, O'Neill WW. Unstable Angina: Early Use of Coronary Angiography and Intervention. *Cardiol Clin* 1999;17(2):373-386. PMID: 10384833.
- M13) **McCullough PA**, Marks KR. Aspirin and Ticlopidine after Routine Coronary Stenting: The Gold Standard as of 1999. *J Thromb Thrombolysis* 1999;7:233-239. PMID: 10373716.
- M14) Sharma ND, **McCullough PA**, Philbin EF, Weaver WD. Left Ventricular Thrombus and Subsequent Thromboembolism in Patients with Severe Systolic Dysfunction. *Chest* 1999;117:314-320. PMID: 10669669.
- M15) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. Impaired Culprit Vessel Flow in Acute Coronary Syndromes Ineligible for Thrombolysis. *J Thromb Thrombolysis* 2001;10(3):247-253. PMID: 11122545.
- M16) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. A Time to Treatment Analysis in the Medicine versus Angiography in Thrombolytic Exclusion (MATE) Trial. *J Interv Cardiol* 2001;14(4):415-422. PMID: 12053495.
- M17) **McCullough PA**, Soman SS, Shah SS, Smith ST, Marks KR, Yee J, Steven Borzak S. Risks Associated with Renal Dysfunction in Coronary Care Unit Patients. *J Am Coll Cardiol* 2000;36(3):679-684. PMID: 10987584.



- M18) Philbin EF, **McCullough PA**, Dec GW, DiSalvo TG. Length of Stay and Procedure Utilization are the Major Determinants of Hospital Charges for Heart Failure. *Clin Cardiol* 2001;24:56-62. PMID: 11195608.
- M19) Philbin EF, **McCullough PA**, DiSalvo TG, Dec GW, Jenkins PL, Weaver WD. Socioeconomic Status is an Important Determinant of Utilization of Invasive Procedures after Acute Myocardial Infarction in New York State. *Circulation* 2000;102[suppl III]:III107-115. PMID: 11082372
- M20) Stone GW, Tumlin JA, Madyoon H, Lepor NE, **McCullough PA**, Mathur VS, Murray PT, O'Neill WW. Design and Rationale of CONTRAST--A Prospective, Randomized, Placebo-Controlled Trial of Fenoldopam Mesylate for the Prevention of Radiocontrast Nephropathy. *Rev Cardiovasc Med*. 2001;2 Suppl 1:S31-6. PMID: 12439366.
- M21) Philbin EF, **McCullough PA**, DiSalvo TG, Dec GW, Jenkins PL, Weaver WD. Underuse of invasive procedures among Medicaid patients with acute myocardial infarction. *Am J Public Health*. 2001 Jul;91(7):1082-8. PMID: 11441735
- M22) Bonifacio D, Malineni K, Kadakia R, Soman S, Sandberg K, **McCullough PA**. Coronary Calcification and Interventional Outcomes in Dialysis Patients. *J Cardiovasc Risk* 2001;8(3):133-7. PMID 11455844
- M23) Beattie JN, Soman SS, Sandberg KR, Yee J, Borzak S, **McCullough PA**. Determinants of Mortality after Myocardial Infarction in Patients with Advanced Renal Dysfunction. *Am J Kid Disease* 2001;37:1191-2000. PMID 11382688.
- M24) Cannon CP, Weintraub WS, Demopoulos LA, Vicari R, Frey MJ, Lakkis N, Neumann FJ, Robertson DH, DeLuca PT, DiBattiste PM, Gibson CM, Braunwald E; TACTICS (Treat Angina with Aggrastat and Determine Cost of Therapy with an Invasive or Conservative Strategy)--Thrombolysis in Myocardial Infarction 18 Investigators (**McCullough PA**, Endpoints Committee). Comparison of early invasive and conservative strategies in patients with unstable coronary syndromes treated with the glycoprotein IIb/IIIa inhibitor tirofiban. *N Engl J Med*. 2001 Jun 21;344(25):1879-87. PMID: 11419424
- M25) Shah SS, Noor H, Tokarski G, McCord J, Khoury N, McCabe KB, Marks KR, Morlock RJ, **McCullough PA**. Clinical Effectiveness Evaluation of an Emergency Department Clinical Decision Unit. *British Journal of Clinical Governance* 2001;6(1):40-45.
- M26) Cheitlin MD, Gerstenblith G, Hazzard WR, Pasternak R, Fried LP, Rich MW, Krumholz HM, Peterson E, Reves JG, McKay C, Saksena S, Shen WK, Akhtar M, Brass LM, Biller J. (**McCullough PA**, Heart Failure Subcommittee). AHA Conference Proceedings: Do existing databases hold the answers to clinical questions in geriatric cardiovascular disease and stroke? Executive Summary. Database Conference, January 27-30, 2000. *Circulation*. 2001 Aug 14;104(7):E39. PMID: 11502721.

- M27) McCord J, Nowak RM, **McCullough PA**, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Jacobsen G, Weaver WD. Ninety Minute Exclusion of Acute Myocardial Infarction Using Quantitative Point of Care Testing of Myoglobin and Troponin I. *Circulation* 2001; Sep 25;104(13):1483-8. PMID: 11571240.
- M28) **McCullough PA**, Manley HJ. Prediction and Prevention of Contrast Nephropathy. *J Interv Cardiol* 2001;14(5):547-558. PMID: 12053647.
- M29) **McCullough PA**, Philbin EF, Spertus JA, Kaatz S, Sandberg KR, Weaver WD. Confirmation of a Heart Failure Epidemic: Findings from the Resource Utilization Among Congestive Heart Failure (R.E.A.C.H.) Study. *J Am Coll Cardiol* 2002;39:60-69. PMID: 11755288.
- M30) Riaz K, Forker AD, Garg M, **McCullough PA**. Atypical presentation of cocaine-induced Type A aortic dissection: a diagnosis made by transesophageal echocardiography. *J Investig Med*. 2002 Mar;50(2):140-2. PMID 11928942.
- M31) Levin A, Stevens L, **McCullough PA**. Cardiovascular disease and the kidney. Tracking a killer in chronic kidney disease. *Postgraduate Medicine* 2002;11(4):53-60. PMID 11985133.
- M32) Ketterer MW, Denollet J, Goldberg AD, **McCullough PA**, John S, Farha AJ, Clark V, Keteyian S, Chapp J, Thayer B, Deveshwar S. The Big Mush: Psychometric Measures are Confounded and Nonindependent in Their Association with Age at Initial Diagnosis of Ischemic Coronary Heart Disease. *J Cardiovasc Risk* 2002;9:41-48. PMID 11984216.
- M33) Abraham WT, Fisher WG, Smith AL, Delurgio DB, Leon AR, Loh E, Kocovic DZ, Packer M, Clavell AL, Hayes DL, Ellestad M, Trupp RJ, Underwood J, Pickering F, Truex C, McAttee P, Messenger J; MIRACLE Study Group. Multicenter InSync Randomized Clinical Evaluation (**McCullough PA**, Site Principal Investigator). Cardiac resynchronization in chronic heart failure. *N Engl J Med*. 2002 Jun 13;346(24):1845-53. PMID 12063368.
- M34) **McCullough PA**. Outcomes studies and the biomedical research enterprise. *J Interv Cardiol*. 2002 Apr;15(2):167-70. PMID 12063813.
- M35) Shenkman HJ, Pampati V, Khandelwal AK, McKinnon J, Nori D, Kaatz S, Sandberg KR, **McCullough PA**. Congestive Heart Failure and QRS Duration: Establishing Prognosis Study. *Chest* 2002 Aug;122(2):528-34. PMID 12171827.
- M36) Soman SS, Sandberg KR, Borzak S, Hudson MP, Yee J, **McCullough PA**. The Independent Association of Renal Dysfunction and Arrhythmias in Critically Ill Patients. *Chest* 2002 Aug;122(2):669-77. PMID 12171849.
- M37) Maisel AS, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AHB, Clopton P, **McCullough PA**, for the BNP Multinational Study Investigators. Bedside B-type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure:

Primary Results from the Breathing Not Properly (BNP) Multinational Study. N Engl J Med, 2002;347(3):161-167. PMID 12124404.

- M38) **McCullough PA**, Sullivan R. News and Views: Equipoise on Opening Chronic Total Occlusions. J Interv Cardiol 2002;15(3):243-247. PMID 12141153.
- M39) **McCullough PA**, Sandberg KR, Borzak S, Hudson MP, Garg M, Manley HJ. Benefits of aspirin and beta-blockade after myocardial infarction in patients with chronic kidney disease. Am Heart J. 2002 Aug;144(2):226-32. PMID 12177638.
- M40) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Herrman HC, Steg PG, Duc P, Westheim A, Omland T, Wold Knudsen C, Storrow AB, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, for the BNP Multinational Study Investigators. B-type Natriuretic Peptide and Clinical Judgment in the Emergency Diagnosis of Heart Failure: An Analysis from the Breathing Not Properly (BNP) Multinational Study. Circulation 2002;106:416-422. PMID 12135939.
- M41) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Weaver WD, Sandberg KR, McCord J. Emergency evaluation of chest pain in patients with advanced kidney disease. Arch Intern Med. 2002 Nov 25;162(21):2464-8. PMID 12437406.
- M42) Gutierrez N, Diaz A, Timmis GC, O'Neill WW, Stevens MA, **McCullough PA**. Determinants of serum creatinine trajectory in acute contrast nephropathy. J Interv Cardiol. 2002 Oct;15(5):349-54. PMID: 12440177.
- M43) **McCullough PA**, Prakash R, Tobin KJ, O'Neill WW, Thompson RJ. Application of a cardiac arrest score in patients with sudden death and ST segment elevation for triage to angiography and intervention. J Interv Cardiol. 2002 Aug;15(4):257-61. PMID 12238419.
- M44) Reddy HK, Koshy SK, Sturek M, Jayam VK, Bedi A, **McCullough PA**. Rationale and methods for assessment of coronary flow prior to coronary intervention: where are we headed? J Interv Cardiol. 2002 Aug;15(4):335-41. PMID 12238433.
- M45) Sengstock D, Pasnoori V, Obaidat O, Mehra P, Marks KR, **McCullough PA**. Asthma, Beta-Agonists, and the Development of Congestive Heart Failure: Results of the A.B.C.H.F. Study. J Card Failure, 2002;8(4):232-238. PMID 12397571.
- M46) Sullivan R, **McCullough PA**. Shifting statins from clinic to critical care. J Interv Cardiol. 2002 Oct;15(5):431-4. PMID 12440192.
- M47) **McCullough PA**. Cardiorenal Risk: An Important Clinical Intersection. Rev Cardiovasc Med. 2002;3(2):71-76. PMID 12447150

- M48) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Khoury NE, Weaver WD, Sandberg KR, McCord J. Performance of Multiple Cardiac Biomarkers Measured in the Emergency Department in Patients with Chronic Kidney Disease and Chest Pain. *Acad Emerg Med*. 2002 Dec;9(12):1389-1396. PMID 12460842
- M49) **McCullough PA**. Scope of cardiovascular complications in patients with kidney disease. *Ethn Dis*. 2002 Fall;12(4):S3-44-8. PMID 12477154
- M50) Safley DM, **McCullough PA**. Antiphospholipid syndrome with renal artery embolism: case report. *Rev Cardiovasc Med*. 2002 Fall;3(4):192-201. PMID: 12556753
- M51) **McCullough PA**, Sandberg KR, Yee J, Hudson MP. Mortality benefit of angiotensin-converting enzyme inhibitors after cardiac events in patients with end-stage renal disease. *J Renin Angiotensin Aldosterone Syst*. 2002 Sep;3(3):188-91. PMID: 12563570
- M52) **McCullough PA**. Beyond serum creatinine: defining the patient with renal insufficiency and why? *Rev Cardiovasc Med* 2003;4(Suppl 1):S2-S6. PMID 12556731
- M53) Riaz K, Forker AD, Isley WL, Hamburg MS, **McCullough PA**. Hyperthyroidism: a curable cause of congestive heart failure-three case reports and a review of the literature. *Congest Heart Fail*. 2003 Jan-Feb;9(1):40-6. PMID 12556677
- M54) **McCullough PA**, Philbin EF, Spertus JA, Sandberg KR, Sullivan RA, Kaatz S. Opportunities for improvement in the diagnosis and treatment of heart failure. *Clin Cardiol*. 2003 May;26(5):231-7. PMID 12769251
- M55) Maisel AS, DeMaria A, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AHB, Clopton P, **McCullough PA**, for the BNP Multinational Study Investigators. Bedside B-Type natriuretic peptide in the emergency diagnosis of heart failure with reduced or preserved ejection fraction. Results from the Breathing Not Properly Multinational Study. *J Am Coll Cardiol*. 2003 Jun 4;41(11):2010-7. PMID 12798574
- M56) **McCullough PA**, Duc P, Omland T, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Westheim A, Knudsen CW, Storrow AB, Abraham WT, Lamba S, Wu AH, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS; Breathing Not Properly Multinational Study Investigators. B-type natriuretic peptide and renal function in the diagnosis of heart failure: an analysis from the Breathing Not Properly Multinational Study. *Am J Kidney Dis*. 2003 Mar;41(3):571-9. PMID 12612980
- M57) **McCullough PA**, Hollander JE, Nowak RM, Storrow AB, Duc P, Omland T, McCord J, Hermann HC, Steg PG, Westheim A, Knudsen CW, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, for the BNP Multinational Study Investigators. Uncovering Heart Failure in Patients with a History of Pulmonary Disease: Rationale for the Early

Use of B-type Natriuretic Peptide in the Emergency Department.  
Acad Emerg Med. 2003 Mar;10(3):198-204. PMID 12615582

- M58) **McCullough PA**. Why is chronic kidney disease the "spoiler" for cardiovascular outcomes? J Am Coll Cardiol. 2003 Mar 5;41(5):725-8. PMID 12628713
- M59) Riaz K, **McCullough PA**. Fatal case of delayed repolarization due to cocaine abuse and global ischemia. Rev Cardiovasc Med. 2003 Winter;4(1):47-53. PMID 12684601
- M60) Safley DM, **McCullough PA**. The Emerging Role of Brain Natriuretic Peptide in the Management of Acute and Chronic Heart Failure in Outpatients. Heart Fail Monit. 2003;4(1):13-20. PMID 12808480
- M61) **McCullough PA**, Philbin EF, Spertus JA, Sandberg KR, Kaatz S. Angiotensin converting enzyme inhibitors and beta-blockers in African Americans with heart failure. Ethn Dis. 2003 Summer;13(3):331-6. PMID 12894957.
- M62) **McCullough PA**. Acute coronary syndromes in patients with renal failure. Curr Cardiol Rep. 2003 Jul;5(4):266-70. PMID 12801443
- M63) **McCullough PA**. B-type natriuretic peptides. A diagnostic breakthrough in heart failure. Minerva Cardioangiol. 2003 Apr;51(2):121-9. PMID 12783068
- M64) Keeley EC, Kadakia R, Soman S, Borzak S, **McCullough PA**. Analysis of long-term survival after revascularization in patients with chronic kidney disease presenting with acute coronary syndromes. Am J Cardiol. 2003 Sep 1;92(5):509-14. PMID 12943868.
- M65) **McCullough PA**, Omland T, Maisel AS. B-type natriuretic peptides: a diagnostic breakthrough for clinicians. Rev Cardiovasc Med. 2003 Spring;4(2):72-80. PMID 12776016
- M66) **McCullough PA**, Abraham WT. Does Quality of Life Evidence Assist in the Selection of Patients for Resynchronization Therapy? Card Electrophysiol Rev. 2003 Jan;7(1):71-76. PMID 12766523
- M67) Chew DP, Bhatt DL, Kimball W, Henry TD, Berger P, **McCullough PA**, Feit F, Bittl JA, Lincoff AM. Bivalirudin provides increasing benefit with decreasing renal function: a meta-analysis of randomized trials. Am J Cardiol. 2003 Oct 15;92(8):919-23. PMID 14556866
- M68) Maisel AS, **McCullough PA**. Cardiac natriuretic peptides: a proteomic window to cardiac function and clinical management. Rev Cardiovasc Med. 2003;4 Suppl 4:S3-S12. PMID 14564223

- M69) **McCullough PA**, Sandberg KR. Sorting out the evidence on natriuretic peptides. *Rev Cardiovasc Med.* 2003;4 Suppl 4:S13-9. PMID 14564224
- M70) **McCullough PA**, Sandberg KR. B-type natriuretic peptide and renal disease. *Heart Fail Rev.* 2003 Oct;8(4):355-8. PMID 14574057
- M71) Keeley EC, **McCullough PA**. Coronary revascularization in patients with end-stage renal disease: risks, benefits, and optimal strategies. *Rev Cardiovasc Med.* 2003 Summer;4(3):125-30. PMID 12949440.
- M72) McCord J, Nowak RM, Hudson MP, **McCullough PA**, Tomlanovich MC, Jacobsen G, Tokarski G, Khoury N, Weaver WD. The prognostic significance of serial myoglobin, troponin I, and creatine kinase-MB measurements in patients evaluated in the emergency department for acute coronary syndrome. *Ann Emerg Med.* 2003 Sep;42(3):343-50. PMID 12944886.
- M73) Sarnak MJ, Levey AS, Schoolwerth AC, Coresh J, Culleton B, Hamm LL, **McCullough PA**, Kasiske BL, Kelepouris E, Klag MJ, Parfrey P, Pfeffer M, Raij L, Spinosa DJ, Wilson PW; AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. Kidney disease as a risk factor for development of cardiovascular disease: a statement from the AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. *Circulation.* 2003 Oct 28;108(17):2154-69. PMID 14581387.
- M74) Sarnak MJ, Levey AS, Schoolwerth AC, Coresh J, Culleton B, Hamm LL, **McCullough PA**, Kasiske BL, Kelepouris E, Klag MJ, Parfrey P, Pfeffer M, Raij L, Spinosa DJ, Wilson PW; AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. Kidney disease as a risk factor for development of cardiovascular disease: a statement from the AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. *Hypertension.* 2003 Nov;42(5):1050-65. PMID 14604997.
- M75) Stone GW, **McCullough PA**, Tumlin JA, Lepor NE, Madyoon H, Murray P, Wang A, Chu AA, Schaer GL, Stevens M, Wilensky RL, O'Neill WW; CONTRAST Investigators. Fenoldopam mesylate for the prevention of contrast-induced nephropathy: a randomized controlled trial. *JAMA.* 2003 Nov 5;290(17):2284-91. PMID 14600187.
- M76) Steg PG, Duc P, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Baron G, Aumont MC, Mentre F, **McCullough PA**, Maisel AS. A comparison of bedside B-type natriuretic peptide versus echocardiographic determination of ejection fraction in the diagnosis of heart failure. *J Am Coll Cardiol.* 2003 Mar 19;41(6 Suppl B):337. PMID 14637402
- M77) Kernis SJ, Franklin BA, Sandberg KR, O'Neill WW, **McCullough PA**. Advantages of an early invasive approach in acute coronary syndromes. *Am J Med.* 2003 Dec 1;115(8):669-71. PMID 14656622

- M78) **McCullough PA**, Sandberg KR. Epidemiology of contrast-induced nephropathy. Rev Cardiovasc Med. 2003;4 Suppl 5:S3-9. PMID 14668704
- M79) Khanna A, **McCullough PA**. Malignant hypertension presenting as hemolysis, thrombocytopenia, and renal failure. Rev Cardiovasc Med. 2003 Fall;4(4):255-9. PMID 14674379
- M80) **McCullough PA**, Fonarow GC. B-type natriuretic peptide and multimarker approaches in cardiovascular medicine. Rev Cardiovasc Med. 2003;4 Suppl 4:S1-2. PMID 14703686
- M81) **McCullough PA**, Kuncheria J, Mathur VS. Diagnostic and therapeutic utility of B-type natriuretic peptide in patients with renal insufficiency and decompensated heart failure. Rev Cardiovasc Med. 2003;4 Suppl 7:S3-S12. PMID 14668695
- M82) Franklin BA, **McCullough PA**, Gordon S. Winter Storm Warning: Snow Removal May Be Hazardous to Your (Patient's) Health. Curr Sports Med Rep. 2004 Apr;3(2):59-61. PMID 14980132
- M83) Conaway DG, Sullivan RA, **McCullough PA**. Improved Symptoms, Physical Limitation, and Self-Efficacy After Resynchronization in a Patient with Heart Failure and a Prolonged QRS Duration. Rev Cardiovasc Med. 2004 Winter;5(1):53-7. PMID 15029112
- M84) **McCullough PA**, Sandberg KR Chronic kidney disease and sudden death: strategies for prevention. Blood Purif. 2004;22(1):136-42. PMID 14732822
- M85) Knudsen, CW, Omland, T, Clopton P, Westheim, A, Abraham, WT, Storror AB, J McCord, Nowak, RM, Steg, PG, Duc, P, **McCullough, PA**, Maisel, AS, for the BNP Multinational Study Investigators. Diagnostic Value of B-type Natriuretic Peptide and Chest Radiograph Findings in Patients with Acute Dyspnea. Am J Med. 2004 Mar 15;116(6):363-8. PMID 15006584
- M86) **McCullough PA**, Gibson CM, Dibattiste PM, Demopoulos LA, Murphy SA, Weintraub WS, Neumann FJ, Khanal S, Cannon CP; TACTICS-TIMI-18 INVESTIGATORS. Timing of Angiography and Revascularization in Acute Coronary Syndromes: J Interv Cardiol. 2004 Apr;17(2):81-86. PMID 15104769.
- M87) **McCullough PA**. B-type natriuretic peptide and its clinical implications in heart failure. Am Heart Hosp J 2004;2:26-33.
- M88) **McCullough PA**, Dorrell KA, Sandberg KR, Yerkey MW. Ximelagatran: a novel oral direct thrombin inhibitor for long-term anticoagulation. Rev Cardiovasc Med. 2004 Spring;5(2):99-103. PMID 15184843.

- M89) Maisel AS, Clopton P, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg G, Westheim A, Knudsen CW, Perez A, Kazanegra R, Bhalla V, Herrmann HC, Aumont MC, **McCullough PA**; BNP Multinational Study Investigators. Impact of age, race, and sex on the ability of B-type natriuretic peptide to aid in the emergency diagnosis of heart failure: results from the Breathing Not Properly (BNP) multinational study. *Am Heart J*. 2004 Jun;147(6):1078-84. PMID 15199359.
- M90) **McCullough PA**. Cardiovascular risk reduction and preservation of renal function in the early nephropathy patient. *Adv Chronic Kidney Dis*. 2004 Apr;11(2):184-91. PMID 15216489.
- M91) Yerkey MW, Kernis SJ, Franklin BA, Sandberg KR, **McCullough PA**. Renal dysfunction and acceleration of coronary disease. *Heart*. 2004 Aug;90(8):961-6. PMID 15253986
- M92) **McCullough PA**, Soman S. Cardiovascular calcification in patients with chronic renal failure: Are we on target with this risk factor? *Kidney Int*. 2004 Sep;66 Suppl 90:S18-24. PMID 15296503
- M93) **McCullough PA**, Sandberg KR, Dumler F, Yanez JE. Determinants of coronary vascular calcification in patients with chronic kidney disease and end-stage renal disease: a systematic review. *J Nephrol*. 2004 Mar-Apr;17(2):205-15. PMID 15293519
- M94) **McCullough PA**. Opportunities for improvement in the cardiovascular care of patients with end-stage renal disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):294-303. PMID 15241743
- M95) Dumler F, **McCullough PA**. Optimal dialysis for the end-stage renal disease patient with cardiovascular disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):261-73. PMID 15241741
- M96) Keeley EC, **McCullough PA**. Coronary revascularization in patients with coronary artery disease and chronic kidney disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):254-60. PMID 15241740
- M97) **McCullough PA**. Guest editorial: Cardiovascular care in end-stage renal disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):245. PMID 15241738
- M98) **McCullough PA**, Bakris GL, Owen WF Jr, Klassen PS, Califf RM. Slowing the progression of diabetic nephropathy and its cardiovascular consequences. *Am Heart J*. 2004 Aug;148(2):243-51. PMID 15308993
- M99) Best PJ, Reddan DN, Berger PB, Szczech LA, **McCullough PA**, Califf RM. Cardiovascular disease and chronic kidney disease: insights and an update. *Am Heart J*. 2004 Aug;148(2):230-42. PMID 15308992



- M100) Bakris GL, Toto RD, **McCullough PA**. Rationale and design of a study comparing two fixed-dose combination regimens to reduce albuminuria in patients with type II diabetes and hypertension. *J Hum Hypertens*. 2004 Sep 30 PMID 15457206.
- M101) Wu AH, Omland T, Duc P, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Wold Knudsen C, Storrow AB, Abraham WT, Perez A, Kamin R, Clopton P, Maisel AS, **McCullough PA**. Breathing Not Properly Multinational Study Investigators. The effect of diabetes on B-type natriuretic peptide concentrations in patients with acute dyspnea: an analysis from the Breathing Not Properly Multinational Study. *Diabetes Care*. 2004 Oct;27(10):2398-404. PMID 15451907
- M102) **McCullough PA**, Franklin BA. Conventional risk factors and cardiac events--debunking an old myth about prevalence. *Rev Cardiovasc Med*. 2004 Summer;5(3):185-6. PMID 15346104
- M103) Maisel A, Hollander JE, Guss D, **McCullough P**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Bhalla V, Clopton P, Jesse R; Rapid Emergency Department Heart Failure Outpatient Trial investigators. Primary results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT): a multicenter study of B-type natriuretic peptide levels, emergency department decision making, and outcomes in patients presenting with shortness of breath. *J Am Coll Cardiol*. 2004 Sep 15;44(6):1328-33. PMID 15364340
- M104) **McCullough PA**. Cardiovascular disease in chronic kidney disease from a cardiologist's perspective. *Curr Opin Nephrol Hypertens*. 2004 Nov;13(6):591-600. PMID: 15483448
- M105) McCord J, Mundy BJ, Hudson MP, Maisel AS, Hollander JE, Abraham WT, Steg PG, Omland T, Knudsen CW, Sandberg KR, **McCullough PA**. Relationship between obesity and B-type natriuretic Peptide levels. *Arch Intern Med*. 2004 Nov 8;164(20):2247-52. PMID: 15534162
- M106) Wase A, Basit A, Nazir R, Jamal A, Shah S, Khan T, Mohiuddin I, White C, Saklayen M, **McCullough PA**. Impact of chronic kidney disease upon survival among implantable cardioverter-defibrillator recipients. *J Interv Card Electrophysiol*. 2004 Dec;11(3):199-204. PMID: 15548886
- M107) **McCullough PA**. B-type natriuretic peptide and its clinical implications in heart failure. *Am Heart Hosp J*. 2004 Winter;2(1):26-33. PMID: 15604836
- M108) Silver MA, Maisel A, Yancy CW, **McCullough PA**, Burnett JC Jr., Francis GS, Mehra MR, Peacock WF 4th, Fonarow G, Gibler WB, Morrow DA, Hollander J; BNP Consensus Panel. BNP Consensus Panel 2004: A clinical approach for the diagnostic, prognostic, screening, treatment monitoring, and therapeutic roles of natriuretic peptides in cardiovascular diseases. *Congest Heart Fail*. 2004 Sep-Oct;10(5 Suppl 3):1-30. PMID: 15604859
- M109) **McCullough PA**. Preface. Ximelagatran and oral direct thrombin inhibition. *Rev Cardiovasc Med*. 2004;5 Suppl 5:S1. PMID: 15619609

- M110) Prystowsky EN, **McCullough PA**. Introduction: the role of oral direct thrombin inhibitors in cardiovascular disease. *Rev Cardiovasc Med*. 2004;5 Suppl 5:S2-3. PMID: 15619611
- M111) **McCullough PA**. Clinical applications of B-type natriuretic peptide levels in the care of cardiovascular patients. *Minerva Cardioangiol*. 2004 Dec;52(6):479-89. PMID: 15729209
- M112) Safley DM, Awad A, Sullivan RA, Sandberg KR, Mourad I, Boulware M, Merhi W, **McCullough PA**. Changes in B-type natriuretic peptide levels in hemodialysis and the effect of depressed left ventricular function. *Adv Chronic Kidney Dis*. 2005 Jan;12(1):117-24. PMID: 15719344.
- M113) **McCullough PA**, Khandelwal AK, McKinnon JE, Shenkman HJ, Pampati V, Nori D, Sullivan RA, Sandberg KR, Kaatz S. Outcomes and prognostic factors of systolic as compared with diastolic heart failure in urban America. *Congest Heart Fail*. 2005 Jan-Feb;11(1):6-11. PMID: 15722664.
- M114) **McCullough PA**, Lepor NE. The deadly triangle of anemia, renal insufficiency, and cardiovascular disease: implications for prognosis and treatment. *Rev Cardiovasc Med*. 2005 Winter;6(1):1-10. PMID: 15741920
- M115) El-Achkar TM, Ohmit SE, **McCullough PA**, Crook ED, Brown WW, Grimm R, Bakris GL, Keane WF, Flack JM. Higher prevalence of anemia with diabetes mellitus in moderate kidney insufficiency: The Kidney Early Evaluation Program. *Kidney Int*. 2005 Apr;67(4):1483-8. PMID: 15780101
- M116) **McCullough PA**, Soman SS. Contrast-induced nephropathy. *Crit Care Clin*. 2005 Apr;21(2):261-80. PMID: 15781162
- M117) **McCullough PA**. Evaluation and treatment of coronary artery disease in patients with end-stage renal disease. *Kidney Int Suppl*. 2005 Jun;(95):s51-8. PMID: 15882314
- M118) Knudsen CW, Clopton P, Westheim A, Klemsdal TO, Wu AH, Duc P, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel AS, Omland T. Predictors of elevated B-type natriuretic peptide concentrations in dyspneic patients without heart failure: an analysis from the breathing not properly multinational study. *Ann Emerg Med*. 2005 Jun;45(6):573-80. PMID: 15940086
- M119) Gallagher MJ, Franklin BA, Ehrman JK, Keteyian SJ, Brawner CA, deJong AT, **McCullough PA**. Comparative Impact of Morbid Obesity vs Heart Failure on Cardiorespiratory Fitness. *Chest*. 2005 Jun;127(6):2197-203. PMID: 15947337
- M120) Mehta SR, Cannon CP, Fox KA, Wallentin L, Boden WE, Spacek R, Widimsky P, **McCullough PA**, Hunt D, Braunwald E, Yusuf S. Routine vs selective invasive strategies in patients with acute coronary syndromes: a collaborative meta-analysis of randomized trials. *JAMA*. 2005 Jun 15;293(23):2908-17. PMID: 15956636

- M121) Merhi W, Dixon SR, O'Neill WW, Hanzel GS, **McCullough PA**. Percutaneous left ventricular assist device in acute myocardial infarction and cardiogenic shock. *Rev Cardiovasc Med*. 2005 Spring;6(2):118-23. PMID: 15976733
- M122) Gallagher MJ, **McCullough PA**. The role of B-type natriuretic peptide in the diagnosis and treatment of decompensated heart failure. *Int J Geriatric Cardiol* 2004; September 1(1):21-28.
- M123) **McCullough PA**, Hassan SA, Pallekonda V, Sandberg KR, Nori DB, Soman SS, Bhatt S, Hudson MP, Weaver WD. Bundle branch block patterns, age, renal dysfunction, and heart failure mortality. *Int J Cardiol*. 2005 Jul 10;102(2):303-8. PMID: 15982501
- M124) Steg PG, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Mentre F, **McCullough PA**, Maisel AS. B-type natriuretic Peptide and echocardiographic determination of ejection fraction in the diagnosis of congestive heart failure in patients with acute dyspnea. *Chest*. 2005 Jul;128(1):21-9. PMID 16002911
- M125) Gallagher MJ, **McCullough PA**. The emerging role of natriuretic peptides in the diagnosis and treatment of decompensated heart failure. *Curr Heart Fail Rep*. 2004 Sep;1(3):129-35. PMID: 16036036
- M126) **McCullough PA**, Sandberg KR, Miller WM, Odom JS, Sloan KC, de Jong AT, Nori KE, Irving SD, Krause KR, Franklin BA. Substantial weight gain during adulthood: the road to bariatric surgery. *Prev Cardiol*. 2005 Summer;8(3):155-9. PMID 16034218
- M127) Miller WM, Nori Janosz KE, Yanez J, **McCullough PA**. Effects of weight loss and pharmacotherapy on inflammatory markers of cardiovascular disease. *Expert Rev Cardiovasc Ther*. 2005 Jul;3(4):743-59. PMID 16076283
- M128) Nori Janosz KE, Miller WM, Odom J, Lillystone M, **McCullough PA**. Optimal diabetes management during medical weight loss for cardiovascular risk reduction. *Expert Rev Cardiovasc Ther*. 2005 Jul;3(4):761-75. PMID 16076284
- M129) **McCullough PA**, Berman AD. Percutaneous coronary interventions in the high-risk renal patient: strategies for renal protection and vascular protection. *Cardiol Clin*. 2005 Aug;23(3):299-310. PMID 16084279
- M130) Luther SA, **McCullough PA**, Havranek EP, Rumsfeld JS, Jones PG, Heidenreich PA, Peterson ED, Rathore SS, Krumholz HM, Weintraub WS, Spertus JA, Masoudi FA; for the Cardiovascular Outcomes Research Consortium. The Relationship Between B-type Natriuretic Peptide and Health Status in Patients With Heart Failure. *J Card Fail*. 2005 Aug;11(6):414-21. PMID 16105631

- M131) Knudsen CW, Omland T, Clopton P, Westheim A, Wu AH, Duc P, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel A. Impact of atrial fibrillation on the diagnostic performance of B-type natriuretic Peptide concentration in dyspneic patients an analysis from the breathing not properly multinational study. *J Am Coll Cardiol*. 2005 Sep 6;46(5):838-44. PMID 16139134
- M132) **McCullough PA**. Chronic angina: new medical options for treatment. *Rev Cardiovasc Med*. 2005 Summer;6(3):152-61. PMID 16195688
- M133) Spertus J, Peterson E, Conard MW, Heidenreich PA, Krumholz HM, Jones P, **McCullough PA**, Pina I, Tooley J, Weintraub WS, Rumsfeld JS; Cardiovascular Outcomes Research Consortium. Monitoring clinical changes in patients with heart failure: a comparison of methods. *Am Heart J*. 2005 Oct;150(4):707-15. PMID 16209970
- M134) **McCullough PA**. Effect of lipid modification on progression of coronary calcification. *J Am Soc Nephrol*. 2005 Nov;16 Suppl 2:S115-9. PMID 16251246
- M135) Wu AH, Omland T, Wold Knudsen C, McCord J, Nowak RM, Hollander JE, Duc P, Storrow AB, Abraham WT, Clopton P, Maisel AS, **McCullough PA**. For The Breathing Not Properly Multinational Study Investigators. Relationship of B-type natriuretic peptide and anemia in patients with and without heart failure: A substudy from the Breathing Not Properly (BNP) Multinational Study. *Am J Hematol*. 2005 Oct 24;80(3):174-180. PMID 16247751
- M136) Miller WM, Nori-Janosz KE, Lillystone M, Yanez J, **McCullough PA**. Obesity and lipids. *Curr Cardiol Rep*. 2005 Nov;7(6):465-70. PMID 16256017
- M137) McCord J, Nowak RM, Jacobsen G, Sallach JA, Wu AH, Perez A, Omland T, Knudsen CW, Westheim A, Duc P, Steg PG, Hollander JE, Herrmann HC, Storrow AB, Abraham WT, Lamba S, **McCullough PA**, Maisel A. B-Type Natriuretic Peptide Levels in Patients in the Emergency Department with Possible Heart Failure and Previous Stable Angina Pectoris and/or Healed Myocardial Infarction. *Am J Cardiol*. 2005 Nov 15;96(10):1370-3. Epub 2005 Sep 23. PMID 16275180
- M138) Chinnaiyan KM, Alexander D, **McCullough PA**. Role of Angiotensin II in the Evolution of Diastolic Heart Failure. *J Clin Hypertens (Greenwich)*. 2005 Dec;7(12):740-7. PMID: 16330897
- M139) **McCullough PA**. Symposium: cardiovascular diseases and renal insufficiency. Introduction. *Int J Geriatric Cardiol* 2005; September 2005 2(3):130.
- M140) **McCullough PA**. Spectrum of cardiorenal disease. *Int J Geriatric Cardiol* 2005; September 2005 2(3):131-135.
- M141) **McCullough PA**, Lepor NE. Anemia: A Modifiable Risk Factor for Heart Disease. *Rev Cardiovasc Med*. 2005;6 Suppl. 3:1-3. PMID: 16340932

- M142) **McCullough PA**, Lepor NE. Piecing Together the Evidence on Anemia: The Link between Chronic Kidney Disease and Cardiovascular Disease. *Rev Cardiovasc Med*. 2005;6 Suppl. 3:4-12. PMID: 16340933
- M143) **McCullough PA**, Silver MA, Kennard ED, Kelsey SF, Michaels AD; IEPR Investigators. Impact of body mass index on outcomes of enhanced external counterpulsation therapy. *Am Heart J*. 2006 Jan;151(1):139. PMID: 16368306
- M144) Strunk A, Bhalla V, Clopton P, Nowak RM, McCord J, Hollander JE, Duc P, Storrow AB, Abraham WT, Wu AHB, Steg G, Perez A, Kazanegra R, Herrmann HC, Aumont MC, **McCullough PA**, Maisel A, for the BNP Multinational Study Investigators. Impact of the history of congestive heart failure on the utility of B-type natriuretic peptide in the emergency diagnosis of heart failure: Results from the Breathing Not Properly Multinational Study. *Am J Med* 119(1):69.e1-69.e11, 2006. PMID: 16431187
- M145) **McCullough P**. Outcomes of contrast-induced nephropathy: Experience in patients undergoing cardiovascular intervention. *Catheter Cardiovasc Interv*. 2006 Mar;67(3):335-43. PMID: 16489569.
- M146) **McCullough PA**, Mueller C, Yancy CW Jr. Overview of B-type natriuretic Peptide as a blood test. *Congest Heart Fail*. 2006 Mar-Apr;12(2):99-102. PMID: 16596044
- M147) **McCullough PA**. Ranolazine: Focusing on angina pectoris. *Drugs Today (Barc)*. 2006 Mar;42(3):177-83. PMID: 16628259
- M148) Daniels LB, Clopton P, Bhalla V, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg PG, Westheim A, Knudsen CW, Perez A, Kazanegra R, Herrmann HC, **McCullough PA**, Maisel AS. How obesity affects the cut-points for B-type natriuretic peptide in the diagnosis of acute heart failure. Results from the Breathing Not Properly Multinational Study. *Am Heart J*. 2006 May;151(5):1006-12. PMID: 16644321
- M149) Brenden CK, Hollander JE, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Bhalla V, Clopton P, Jesse R, Maisel AS; REDHOT Investigators. Gray zone BNP levels in heart failure patients in the emergency department: results from the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT) multicenter study. *Am Heart J*. 2006 May;151(5):1013-8. PMID: 16644322
- M150) Daniels LB, Bhalla V, Clopton P, Hollander JE, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Jesse R, Maisel A. B-Type Natriuretic Peptide (BNP) Levels and Ethnic Disparities in Perceived Severity of Heart Failure Results From the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT) Multicenter Study of BNP Levels and Emergency Department Decision Making in Patients Presenting With Shortness of Breath. *J Card Fail*. 2006 May;12(4):281-5. PMID: 16679261

- M151) Hanzel GS, Downes M, **McCullough PA**. Editorial: Renal function after renal artery stenting. *J Geriatric Cardiol* 2005;2(4):196-197.
- M152) Foley RN, **McCullough PA**. Editorial: Anemia and left ventricular hypertrophy in non-dialysis chronic kidney disease. *J Geriatric Cardiol* 2005;2(4):195-196.
- M153) **McCullough PA**. Chronic kidney disease: tipping the scale to the benefit of angiotensin-converting enzyme inhibitors in patients with coronary artery disease. *Circulation*. 2006 Jul 4;114(1):6-7. PMID: 16818827
- M154) **McCullough PA**, Gallagher MJ, deJong AT, Sandberg KR, Trivax JE, Alexander D, Kasturi G, Jafri SM, Krause KR, Chengelis DL, Moy J, Franklin BA. Cardiorespiratory fitness and short-term complications after bariatric surgery. *Chest*. 2006 Aug;130(2):517-25. PMID: 16899853
- M155) Ochoa AB, DeJong A, Grayson D, Franklin B, **McCullough P**. Effect of enhanced external counterpulsation on resting oxygen uptake in patients having previous coronary revascularization and in healthy volunteers. *Am J Cardiol*. 2006 Sep 1;98(5):613-5. Epub 2006 Jun 30. PMID: 16923446
- M156) **McCullough PA**, Bertrand ME, Brinker JA, Stacul F. A meta-analysis of the renal safety of isosmolar iodixanol compared with low-osmolar contrast media. *J Am Coll Cardiol*. 2006 Aug 15;48(4):692-9. Epub 2006 Jul 24. PMID: 16904536
- M157) **McCullough PA**, Wase A. Do implantable cardioverter-defibrillators improve survival in dialysis patients after cardiac arrest? *Nat Clin Pract Nephrol*. 2006 Feb;2(2):70-1. PMID: 16932394
- M158) **McCullough PA**, Stacul F, Davidson C, Becker CR, Adam A, Lameire N, Tumlin J; CIN Consensus Working Panel. Overview. *Am J Cardiol*. 2006 Sep 18;98(6S1):2-4. Epub 2006 Feb 13. PMID: 16949374.
- M159) **McCullough PA**, Adam A, Becker CR, Davidson C, Lameire N, Stacul F, Tumlin J; CIN Consensus Working Panel. Epidemiology and Prognostic Implications of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):5-13. Epub 2006 Feb 10. PMID: 16949375
- M160) Tumlin J, Stacul F, Adam A, Becker CR, Davidson C, Lameire N, **McCullough PA**; CIN Consensus Working Panel. Pathophysiology of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):14-20. Epub 2006 Feb 17. PMID: 16949376
- M161) Lameire N, Adam A, Becker CR, Davidson C, **McCullough PA**, Stacul F, Tumlin J; CIN Consensus Working Panel. Baseline Renal Function Screening. *Am J Cardiol*. 2006 Sep 18;98(6S1):21-26. Epub 2006 Feb 20. PMID: 16949377

- M162) **McCullough PA**, Adam A, Becker CR, Davidson C, Lameire N, Stacul F, Tumlin J; CIN Consensus Working Panel. Risk Prediction of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):27-36. Epub 2006 Feb 23. PMID: 16949378
- M163) Becker CR, Davidson C, Lameire N, **McCullough PA**, Stacul F, Tumlin J, Adam A; CIN Consensus Working Panel. High-Risk Situations and Procedures. *Am J Cardiol*. 2006 Sep 18;98(6S1):37-41. Epub 2006 Feb 20. PMID: 16949379
- M164) Davidson C, Stacul F, **McCullough PA**, Tumlin J, Adam A, Lameire N, Becker CR; CIN Consensus Working Panel. Contrast Medium Use. *Am J Cardiol*. 2006 Sep 18;98(6S1):42-58. Epub 2006 Mar 2. PMID: 16949380
- M165) Stacul F, Adam A, Becker CR, Davidson C, Lameire N, **McCullough PA**, Tumlin J; CIN Consensus Working Panel. Strategies to Reduce the Risk of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):59-77. Epub 2006 Mar 20. PMID: 16949381
- M166) Vanhecke TE, Miller WM, Franklin BA, Weber JE, **McCullough PA**. Awareness, knowledge, and perception of heart disease among adolescents. *Eur J Cardiovasc Prev Rehabil*. 2006 Oct;13(5):718-23. PMID: 17001210
- M167) Zalesin KC, **McCullough PA**. Bariatric surgery for morbid obesity: risks and benefits in chronic kidney disease patients. *Adv Chronic Kidney Dis*. 2006 Oct;13(4):403-17. PMID: 17045226
- M168) Michaels AD, **McCullough PA**, Soran OZ, Lawson WE, Barsness GW, Henry TD, Linnemeier G, Ochoa A, Kelsey SF, Kennard ED, for the IEPR Investigators. Primer: practical approach to the selection of patients for and application of EECF. *Nature Clinical Practice Cardiovascular Medicine* 2006; 3: 623-632. PMID: 17063167
- M169) **McCullough PA**. Failure of beta-blockers in the reduction of perioperative events: where did we go wrong? *Am Heart J*. 2006 Nov;152(5):815-8. PMID: 17070139
- M170) **McCullough PA**. Renal safety of iodixanol. *Expert Rev Cardiovasc Ther*. 2006 Sep;4(5):655-61. PMID: 17081087
- M171) Vanhecke TE, Franklin BA, Lillystone MA, Sandberg KR, DeJong AT, Krause KR, Chengelis DL, **McCullough PA**. Caloric Expenditure in the Morbidly Obese Using Dual Energy X-ray Absorptiometry. *J Clin Densitom*. 2006 Oct-Dec;9(4):438-44. Epub 2006 Sep 28. PMID: 17097530
- M172) Conard MW, Haddock CK, Poston WS, Havranek E, **McCullough P**, Spertus J; Cardiovascular Outcomes Research Consortium. Impact of obesity on the health status of heart failure patients. *J Card Fail*. 2006 Dec;12(9):700-6. PMID: 17174231

- M173) **McCullough PA**, Stacul F, Becker CR, Adam A, Lameire N, Tumlin JA, Davidson CJ. Contrast-Induced Nephropathy (CIN) Consensus Working Panel: Executive Summary. *Rev Cardiovasc Med*. 2006 Fall;7(4):177-97. PMID: 17224862
- M174) Chinnaiyan KM, Alexander D, Maddens M, **McCullough PA**. Curriculum in cardiology: integrated diagnosis and management of diastolic heart failure. *Am Heart J*. 2007 Feb;153(2):189-200. PMID: 17239676
- M175) Vogel JA, Franklin BA, Zalesin KC, Trivax JE, Krause KR, Chengelis DL, **McCullough PA**. Reduction in predicted coronary heart disease risk after substantial weight reduction after bariatric surgery. *Am J Cardiol*. 2007 Jan 15;99(2):222-6. Epub 2006 Nov 16. PMID: 17223422
- M176) **McCullough PA**, Rocher LR. Statin therapy in renal disease: Harmful or protective. *Curr Atheroscler Rep*. 2007 Jan;9(1):18-24. PMID: 17169242
- M177) **McCullough PA**. [Cardiorenal intersection: crossroads to the future.] *Arq Bras Cardiol*. 2007 Jan;88(1):117-26. Portuguese Translation. PMID: 17364130
- M178) Mehta L, Devlin W, **McCullough PA**, O'Neill WW, Skelding KA, Stone GW, Boura JA, Grines CL. Impact of body mass index on outcomes after percutaneous coronary intervention in patients with acute myocardial infarction. *Am J Cardiol*. 2007 Apr 1;99(7):906-10. Epub 2007 Feb 12. PMID: 17398181
- M179) **McCullough PA**. Kidney disease. Estimated glomerular filtration rate: why is it important? *Rev Cardiovasc Med*. 2007 Winter;8(1):46-9. PMID: 17401304
- M180) Lawson WE, Hui JC, Kennard ED, Soran O, **McCullough PA**, Kelsey SF; for the IEPR Investigators. Effect of enhanced external counterpulsation on medically refractory angina patients with erectile dysfunction. *Int J Clin Pract*. 2007 May;61(5):757-62. PMID: 17493089
- M181) **McCullough PA**, Jurkovitz CT, Pergola PE, McGill JB, Brown WW, Collins AJ, Chen SC, Li S, Singh A, Norris KC, Klag MJ, Bakris GL; for the KEEP Investigators. Independent Components of Chronic Kidney Disease as a Cardiovascular Risk State: Results From the Kidney Early Evaluation Program (KEEP). *Arch Intern Med*. 2007 Jun 11;167(11):1122-9. PMID: 17563019
- M182) **McCullough PA**. Coronary artery disease. *Clin J Am Soc Nephrol*. 2007 May;2(3):611-6. Epub 2007 Mar 21. PMID: 17699471
- M183) **McCullough PA**, Lepor NE. The rosiglitazone meta-analysis. *Rev Cardiovasc Med*. 2007 Spring;8(2):123-6. PMID: 17603430
- M184) **McCullough PA**, Henry TD, Kennard ED, Kelsey SF, Michaels AD; for the IEPR Investigators. Residual high-grade angina after enhanced external counterpulsation therapy. *Cardiovasc Revasc Med*. 2007 Jul-Sep;8(3):161-5. PMID: 17765644



- M185) Miller WM, Nori Janosz KE, Zalesin KC, **McCullough PA**. Nutraceutical meal replacements: more effective than all-food diets in the treatment of obesity. *Therapy* 2007, 4(5):623-639.
- M186) Zalesin KC, Miller WM, Nori Janosz KE, Yanez J, Krause K, Chengelis DL, **McCullough PA**. Controversies in vitamin D: deficiency and supplementation after Roux-en-Y gastric bypass surgery. *Therapy* 2007, 4(5):561-574.
- M187) Li S, Chen SC, Shlipak M, Bakris G, **McCullough PA**, Sowers J, Stevens L, Jurkovitz C, McFarlane S, Norris K, Vassalotti J, Klag MJ, Brown WW, Narva A, Calhoun D, Johnson B, Obialo C, Whaley-Connell A, Becker B, Collins AJ. Low birth weight is associated with chronic kidney disease only in men. *Kidney Int.* 2008 Mar;73(5):637-42. PMID: 18094674
- M188) Duru OK, Li S, Jurkovitz C, Bakris G, Brown W, Chen SC, Collins A, Klag M, **McCullough PA**, McGill J, Narva A, Pergola P, Singh A, Norris K. Race and Sex Differences in Hypertension Control in CKD: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis.* 2008 Feb;51(2):192-8. PMID: 18215697
- M189) **McCullough PA**. Multimodality prevention of contrast-induced acute kidney injury. *Am J Kidney Dis.* 2008 Feb;51(2):169-72. PMID: 18215694
- M190) **McCullough PA**, Rocher LR. Statin therapy in renal disease: harmful or protective? *Curr Diab Rep.* 2007 Dec;7(6):467-73. PMID: 18255012
- M191) Nori Janosz KE, Koenig Berris KA, Leff C, Miller WM, Yanez J, Myers S, Vial C, Vanderlinden M, Franklin BA, **McCullough PA**. Clinical resolution of type 2 diabetes with reduction in body mass index using meal replacement based weight loss. *Vascular Disease Prevention* vol.5, 17-23(2008).
- M192) Bellomo R, Auriemma S, Fabbri A, D'Onofrio A, Katz N, **McCullough PA**, Ricci Z, Shaw A, Ronco C. The pathophysiology of cardiac surgery-associated acute kidney injury (CSA-AKI). *Int J Artif Organs.* 2008 Feb;31(2):166-78. PMID: 18311733
- M193) Bakris GL, Toto RD, **McCullough PA**, Rocha R, Purkayastha D, Davis P; GUARD (Gauging Albuminuria Reduction With Lotrel in Diabetic Patients With Hypertension) Study Investigators. Effects of different ACE inhibitor combinations on albuminuria: results of the GUARD study. *Kidney Int.* 2008 Jun;73(11):1303-9. Epub 2008 Mar 19. PMID: 18354383
- M194) **McCullough PA**, Li S, Jurkovitz CT, Stevens LA, Wang C, Collins AJ, Chen SC, Norris KC, McFarlane SI, Johnson B, Shlipak MG, Obialo CI, Brown WW, Vassalotti JA, Whaley-Connell AT; Kidney Early Evaluation Program Investigators. CKD and cardiovascular disease in screened high-risk volunteer and general populations: the Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis.* 2008 Apr;51(4 Suppl 2):S38-45. PMID: 18359407

- M195) McFarlane SI, Chen SC, Whaley-Connell AT, Sowers JR, Vassalotti JA, Salifu MO, Li S, Wang C, Bakris G, **McCullough PA**, Collins AJ, Norris KC; Kidney Early Evaluation Program Investigators. Prevalence and associations of anemia of CKD: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S46-55. PMID: 18359408
- M196) Vassalotti JA, Uribarri J, Chen SC, Li S, Wang C, Collins AJ, Calvo MS, Whaley-Connell AT, **McCullough PA**, Norris KC; Kidney Early Evaluation Program Investigators. Trends in mineral metabolism: Kidney Early Evaluation Program (KEEP) and the National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S56-68. PMID: 18359409
- M197) Whaley-Connell AT, Sowers JR, Stevens LA, McFarlane SI, Shlipak MG, Norris KC, Chen SC, Qiu Y, Wang C, Li S, Vassalotti JA, Collins AJ; **Kidney Early Evaluation Program Investigators**. CKD in the United States: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S13-20. PMID: 18359403
- M198) Whaley-Connell AT, Sowers JR, McFarlane SI, Norris KC, Chen SC, Li S, Qiu Y, Wang C, Stevens LA, Vassalotti JA, Collins AJ; **Kidney Early Evaluation Program Investigators**. Diabetes mellitus in CKD: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition and Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S21-9. PMID: 18359404
- M199) **McCullough PA**. Acute kidney injury with iodinated contrast. *Crit Care Med*. 2008 Apr;36(4 Suppl):S204-11. PMID: 18382195
- M200) deJong AT, Gallagher MJ, Sandberg KR, Lillystone MA, Spring T, Franklin BA, **McCullough PA**. Peak oxygen consumption and the minute ventilation/carbon dioxide production relation slope in morbidly obese men and women: influence of subject effort and body mass index. *Prev Cardiol*. 2008 Spring;11(2):100-5. PMID: 18401238
- M201) **McCullough PA**. Contrast-induced acute kidney injury. *J Am Coll Cardiol*. 2008 Apr 15;51(15):1419-28. PMID: 18402894
- M202) Vanhecke TE, Gandhi M, **McCullough PA**, Lazar MH, Ravikrishnan KP, Kadaj P, Begle RL. Outcomes of patients considered for, but not admitted to, the intensive care unit. *Crit Care Med*. 2008 Mar;36(3):812-7. PMID: 18431268
- M203) Zalesin KC, Krause KR, Chengelis DL, **McCullough PA**. Determinants of resolution of type 2 diabetes after bariatric surgery. *Vascular Disease Prevention* 2008;5(2):75-80.

- M204) Miller W, Odom J, Veri S, Korponic S, Lillystone M, **McCullough PA**. Impact of short-term educational and behavioral therapy on childhood obesity. *Vascular Disease Prevention* 2008; 5(2):129-134.
- M205) Vanhecke TE, Franklin BA, Ajluni SC, Sangal RB, **McCullough PA**. Cardiorespiratory fitness and sleep-related breathing disorders. *Expert Rev Cardiovasc Ther*. 2008 Jun;6(5):745-58. PMID: 18510490
- M206) Gebreegziabher Y, **McCullough PA**, Bubb C, Loney-Hutchinson L, Makaryus JN, Anand N, Divakaran V, Akhrass P, Alam A, Gizycki H, McFarlane SI. Admission hyperglycemia and length of hospital stay in patients with diabetes and heart failure: a prospective cohort study. *Congest Heart Fail*. 2008 May-Jun;14(3):117-20. PMID: 18550921
- M207) O'Donoghue M, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F, Sabatine MS. Early invasive vs conservative treatment strategies in women and men with unstable angina and non-ST-segment elevation myocardial infarction: a meta-analysis. *JAMA*. 2008 Jul 2;300(1):71-80. PMID: 18594042
- M208) Franklin BA, **McCullough PA**. The "Null Effect" of Low-Density Lipoprotein Cholesterol Lowering on a Modest Baseline Intima-Media Thickness: Lessons Learned From the ENHANCE Trial. *Prev Cardiol*. 2008 Summer;11(3):177-8.
- M209) Agrawal V, Kizilbash SH, **McCullough PA**. New therapeutic agents for diabetic kidney disease. *Therapy*. 2008 Jun;5(4):553-75.
- M210) Vanhecke TE, Berman AD, **McCullough PA**. Body weight limitations of United States cardiac catheterization laboratories including restricted access for the morbidly obese. *Am J Cardiol*. 2008 Aug 1;102(3):285-6.
- M211) Saab G, Whaley-Connell AT, **McCullough PA**, Bakris GL. CKD awareness in the United States: the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2008 Aug;52(2):382-3.
- M212) **McCullough PA**, Li S, Jurkovitz CT, Stevens L, Collins AJ, Chen SC, Norris KC, McFarlane S, Johnson B, Shlipak MG, Obialo CI, Brown WW, Vassaloti J, Whaley-Connell AT, Brenner RM, Bakris GL; KEEP Investigators. Chronic kidney disease, prevalence of premature cardiovascular disease, and relationship to short-term mortality. *Am Heart J*. 2008 Aug;156(2):277-83. Epub 2008 Jun 4. PMID: 18657657
- M213) **McCullough PA**, Lepor NE. Lipids, biomarkers, and noninvasive imaging of atherosclerotic disease activity in clinical trials. *Rev Cardiovasc Med*. 2008 Spring;9(2):142-9. PMID: 18660735

- M214) **McCullough PA**, Agrawal V, Danielewicz E, Abela GS. Accelerated Atherosclerotic Calcification and Mönckeberg's Sclerosis: A Continuum of Advanced Vascular Pathology in Chronic Kidney Disease. *Clin J Am Soc Nephrol*. 2008 Nov;3(6):1585-98. PMID: 18667741
- M215) Boerrigter G, Costello-Boerrigter LC, Abraham WT, Sutton MG, Heublein DM, Kruger KM, Hill MR, **McCullough PA**, Burnett JC Jr. Cardiac resynchronization therapy improves renal function in human heart failure with reduced glomerular filtration rate. *J Card Fail*. 2008 Sep;14(7):539-46. Epub 2008 May 27. PMID: 18722318
- M216) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. *Endocrinol Metab Clin North Am*. 2008 Sep;37(3):663-84. PMID: 18775358
- M217) Vanhecke TE, Franklin BA, Zalesin KC, Sangal RB, deJong AT, Agrawal V, **McCullough PA**. Cardiorespiratory fitness and obstructive sleep apnea syndrome in morbidly obese patients. *Chest*. 2008 Sep;134(3):539-45. PMID: 18779193
- M218) Madala MC, Franklin BA, Chen AY, Berman AD, Roe MT, Peterson ED, Ohman EM, Smith SC Jr, Gibler WB, **McCullough PA**; CRUSADE Investigators. Obesity and Age of First Non-ST-Segment Elevation Myocardial Infarction. *J Am Coll Cardiol*. 2008 Sep 16;52(12):979-985. PMID: 18786477
- M219) Agrawal V, Khan I, Rai B, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA**. The effect of weight loss after bariatric surgery on albuminuria. *Clin Nephrol*. 2008 Sep;70(3):194-202. PMID: 18793560
- M220) Efstratiadis S, Kennard ED, Kelsey SF, Michaels AD; International EECF Patient Registry-2 Investigators.(**McCullough PA**, site Principal Investigator) Passive tobacco exposure may impair symptomatic improvement in patients with chronic angina undergoing enhanced external counterpulsation. *BMC Cardiovasc Disord*. 2008 Sep 17;8:23. PMID: 18798998
- M221) **McCullough PA**. Radiocontrast-induced acute kidney injury. *Nephron Physiol*. 2008;109(4):p61-72. Epub 2008 Sep 18. PMID: 18802377
- M222) **McCullough PA**. The impact of systemic calcified atherosclerosis in patients with chronic kidney disease. *Adv Chronic Kidney Dis*. 2008 Oct;15(4):335-7. PMID: 18805378
- M223) **McCullough PA**, Chinnaiyan KM, Agrawal V, Danielewicz E, Abela GS. Amplification of atherosclerotic calcification and Mönckeberg's sclerosis: a spectrum of the same disease process. *Adv Chronic Kidney Dis*. 2008 Oct;15(4):396-412. PMID: 18805386
- M224) Agrawal V, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA**. Relation between degree of weight loss after bariatric surgery and reduction in albuminuria and C-

reactive protein. Surg Obes Relat Dis. 2009 Jan-Feb;5(1):20-6. Epub 2008 Aug 5. PMID: 18951068

- M225) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA**. Awareness and Knowledge of Clinical Practice Guidelines for CKD among Internal Medicine Residents: A National Online Survey. Am J Kidney Dis. 2008 Dec;52(6):1061-9. Epub 2008 Oct 30. PMID: 18976845
- M226) Jamerson K, Weber MA, Bakris GL, Dahlöf B, Pitt B, Shi V, Hester A, Gupte J, Gatlin M, Velazquez EJ; ACCOMPLISH Trial Investigators. Benazepril plus amlodipine or hydrochlorothiazide for hypertension in high-risk patients. (**McCullough PA**, Site Principal Investigator) N Engl J Med. 2008 Dec 4;359(23):2417-28. PMID: 19052124
- M227) Flemmer M, Rajab H, Mathena T, Paulson J, Perkins S, Whelan T, Chiu R, **McCullough PA**. Blood B-type natriuretic peptide and dialysis: present assessment and future analyses. South Med J. 2008 Nov;101(11):1094-100. PMID: 19088516
- M228) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA**. Perception of Indications for Nephrology Referral among Internal Medicine Residents: A National Online Survey Clin J Am Soc Nephrol. 2009 Feb;4(2):323-8. PMID: 19218472
- M229) Fried LF, Duckworth W, Zhang JH, O'Connor T, Brophy M, Emanuele N, Huang GD, **McCullough PA**, Palevsky PM, Seliger S, Warren SR, Peduzzi P; for VA NEPHRON-D Investigators. Design of Combination Angiotensin Receptor Blocker and Angiotensin-Converting Enzyme Inhibitor for Treatment of Diabetic Nephropathy (VA NEPHRON-D). Clin J Am Soc Nephrol. 2009 Feb;4(2):361-8. Epub 2008 Dec 31. PMID: 19118120
- M230) Chinnaiyan KM, **McCullough PA**. Optimizing Outcomes in Coronary CT Imaging. Rev Cardiovasc Med. 2008 Fall;9(4):215-24. PMID: 19122579
- M231) Cardenas GA, Lavie CJ, Cardenas V, Milani RV, **McCullough PA**. The importance of recognizing and treating low levels of high-density lipoprotein cholesterol: a new era in atherosclerosis management. Rev Cardiovasc Med. 2008 Fall;9(4):239-58. PMID: 19122582
- M232) Chinnaiyan KM, **McCullough PA**, Flohr TG, Wegner JH, Raff GL. Improved noninvasive coronary angiography in morbidly obese patients with dual-source computed tomography. J Cardiovasc Comput Tomogr. 2008 Dec 3. PMID: 19136325
- M233) Soman P, Lahiri A, Mieres JH, Calnon DA, Wolinsky D, Beller GA, Sias T, Burnham K, Conway L, **McCullough PA**, Daher E, Walsh MN, Wight J, Heller GV, Udelson JE. Etiology and pathophysiology of new-onset heart failure: Evaluation by myocardial perfusion imaging. J Nucl Cardiol. 2009 Jan-Feb;16(1):82-91. Epub 2009 Jan 20. PMID: 19152132
- M234) Goldfarb S, **McCullough PA**, McDermott J, Gay SB. Contrast-induced acute kidney injury: specialty-specific protocols for interventional radiology, diagnostic computed tomography

radiology, and interventional cardiology. Mayo Clin Proc. 2009 Feb;84(2):170-9. PMID: 19181651

M235) **McCullough PA**. Treatment disparities in patients with acute coronary syndromes and kidney disease. Eur Heart J. 2009 Mar;30(5):526-7. PMID: 19201760

M236) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA**. Perception of indications for nephrology referral among internal medicine residents: a national online survey. Clin J Am Soc Nephrol. 2009 Feb;4(2):323-8. PMID: 19218472

M237) **McCullough PA**, Chinnaiyan KM. Hazards of contrast-induced acute kidney injury in elderly women. Women's Health (Lond Engl). 2009 Mar;5(2):123-5. PMID: 19245350

M238) Vanhecke TE, Franklin BA, Miller WM, deJong AT, Coleman CJ, **McCullough PA**. Cardiorespiratory fitness and sedentary lifestyle in the morbidly obese. Clin Cardiol. 2009 Mar;32(3):121-4. PMID: 19301295

M239) Agrawal V, Marinescu V, Agarwal M, **McCullough PA**. Cardiovascular implications of proteinuria: an indicator of chronic kidney disease. Nat Rev Cardiol. 2009 Apr;6(4):301-11. PMID:19352334

M240) O'Connor CM, Whellan DJ, Lee KL, Keteyian SJ, Cooper LS, Ellis SJ, Leifer ES, Kraus WE, Kitzman DW, Blumenthal JA, Rendall DS, Miller NH, Fleg JL, Schulman KA, McKelvie RS, Zannad F, Piña IL; HF-ACTION Investigators.(**McCullough PA** Site Principal Investigator) Efficacy and safety of exercise training in patients with chronic heart failure: HF-ACTION randomized controlled trial. JAMA. 2009 Apr 8;301(14):1439-50. PMID: 19351941

M241) Vanhecke TE, Franklin BA, Maciejko J, Chinnaiyan K, **McCullough PA**. Lipoproteins, inflammatory biomarkers, and cardiovascular imaging in the assessment of atherosclerotic disease activity. Rev Cardiovasc Med. 2009 Winter;10(1):51-8. PMID:19367236

M242) Miller WM, Franklin BA, Nori Janosz KE, Vial C, Kaitner R, **McCullough PA**. Advantages of group treatment and structured exercise in promoting short-term weight loss and cardiovascular risk reduction in adults with central obesity. Metab Syndr Relat Disord 2009 May 18. PMID: 19450156

M243) Agrawal V, Swami A, Kosuri R, Alsabbagh M, Agarwal M, Samarapungavan D, Rocher LL, **McCullough PA**. Contrast-induced acute kidney injury in renal transplant recipients after cardiac catheterization. Clin Nephrol. 2009 Jun;71(6):687-96. PMID: 19473638

M244) Janosz KE, Zalesin KC, Miller WM, **McCullough PA**, Franklin BA. Impact of surgical and nonsurgical weight loss on diabetes resolution and cardiovascular risk reduction. Curr Diab Rep. 2009 Jun;9(3):223-8. PMID: 19490824

- M245) **McCullough PA**, Neyou A. Comprehensive Review of the Relative Clinical Utility of B-Type Natriuretic Peptide and N-Terminal Pro-B-Type Natriuretic Peptide Assays in Cardiovascular Disease. *Open Heart Failure Journal*, 2009, 2, 6-17.
- M246) Odom J, Zalesin KC, Washington TL, Miller WW, Hakmeh B, Zaremba DL, Altattan M, Balasubramaniam M, Gibbs DS, Krause KR, Chengelis DL, Franklin BA, **McCullough PA**. Behavioral Predictors of Weight Regain after Bariatric Surgery. *Obes Surg*. 2010 Mar;20(3):349-56 PMID: 19554382
- M247) **McCullough PA**, Agarwal M, Agrawal V. Review article: Risks of coronary artery calcification in chronic kidney disease: do the same rules apply? *Nephrology (Carlton)*. 2009 Jun;14(4):428-36. PMID: 19563385
- M248) Agrawal V, Shah A, Rice C, Franklin BA, **McCullough PA**. Impact of treating the metabolic syndrome on chronic kidney disease. *Nat Rev Nephrol*. 2009 Sep;5(9):520-8. Epub 2009 Jul 28. Review. PMID: 19636332
- M249) Moe SM, Drüeke TB, Block GA, Cannata-Andía JB, Elder G, Fukagawa M, Jorgetti V, Ketteler M, Langman CB, Levin A, MacLeod AM, McCann L, **McCullough PA**, Ott SM, Wang AY, Weisinger JR, Wheeler DC, Eckardt KU, Kasiske BL, Uhlig K, Moorthi R, Earley A, Persson R. Introduction and definition of CKD-MBD and the development of the guideline statements. *Kidney Int Suppl*. 2009 Aug;(113):S1-130. PMID: 19644521
- M250) **McCullough PA**. Darapladib and atherosclerotic plaque: should lipoprotein-associated phospholipase A2 be a therapeutic target? *Curr Atheroscler Rep*. 2009 Sep;11(5):334-7. PMID: 19664375
- M251) Agrawal V, Vanhecke TE, Rai B, Franklin BA, Sangal RB, **McCullough PA**. Albuminuria and Renal Function in Obese Adults Evaluated for Obstructive Sleep Apnea. *Nephron Clin Pract*. 2009 Aug 12;113(3):c140-c147. PMID: 19672111
- M252) Agrawal V, Barnes MA, Ghosh AK, **McCullough PA**. Questionnaire instrument to assess knowledge of chronic kidney disease clinical practice guidelines among internal medicine residents. *J Eval Clin Pract*. 2009 Aug;15(4):733-8. PMID: 19674226
- M253) Franklin BA, **McCullough PA**. Cardiorespiratory fitness: an independent and additive marker of risk stratification and health outcomes. *Mayo Clin Proc*. 2009 Sep;84(9):776-9. PMID: 19720774
- M254) Lele S, Shah S, **McCullough PA**, Rajapurkar M. Serum catalytic iron as a novel biomarker of vascular injury in acute coronary syndromes. *EuroIntervention*. 2009 Aug;5(3):336-42. PMID: 19736158

- M255) **McCullough PA**, Hanzel GS. B-type natriuretic peptide and echocardiography in the surveillance of severe mitral regurgitation prior to valve surgery. *J Am Coll Cardiol*. 2009 Sep 15;54(12):1107-9. PMID: 19744621
- M256) Pahle AS, Sørli D, Omland T, Knudsen CW, Westheim A, Wu AH, Steg PG, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel A. Impact of systemic hypertension on the diagnostic performance of B-type natriuretic peptide in patients with acute dyspnea. *Am J Cardiol*. 2009 Oct 1;104(7):966-71. PMID: 19766765
- M257) **McCullough PA**. Commentary: contrast-induced nephropathy and long-term adverse events: cause and effect? *Nephrol Dial Transplant*. 2009 Dec;24(12):3578-9. Epub 2009 Sep 25. PMID: 19783600
- M258) Saab G, Whaley-Connell A, McFarlane SI, Li S, Chen SC, Sowers JR, **McCullough PA**, Bakris GL; Kidney Early Evaluation Program Investigators. Obesity is associated with increased parathyroid hormone levels independent of glomerular filtration rate in chronic kidney disease. *Metabolism*. 2009 Oct 1. PMID: 19800639
- M259) McMurray MD, Trivax JE, **McCullough PA**. Serum cystatin C, renal filtration function, and left ventricular remodeling. *Circ Heart Fail*. 2009 Mar;2(2):86-9. PMID: 19808322
- M260) Nori Janosz KE, Zalesin KC, Miller WM, **McCullough PA**. Treating type 2 diabetes: incretin mimetics and enhancers. *Ther Adv Cardiovasc Dis*. 2009 Oct;3(5):387-95. PMID: 19808944
- M261) Thakkar BV, Hirsch AT, Satran D, Bart BA, Barsness G, **McCullough PA**, Kennard ED, Kelsey SF, Henry TD. The efficacy and safety of enhanced external counterpulsation in patients with peripheral arterial disease. *Vasc Med*. 2010 Feb;15(1):15-20. Epub 2009 Oct 19. PMID: 19841026
- M262) Keteyian SJ, Isaac D, Thadani U, Roy BA, Bensimhon DR, McKelvie R, Russell SD, Hellkamp AS, Kraus WE; HF-ACTION Investigators (**McCullough PA** Site Investigator). Safety of symptom-limited cardiopulmonary exercise testing in patients with chronic heart failure due to severe left ventricular systolic dysfunction. *Am Heart J*. 2009 Oct;158(4 Suppl):S72-7. PMID: 19782792
- M263) Flynn KE, Lin L, Ellis SJ, Russell SD, Spertus JA, Whellan DJ, Piña IL, Fine LJ, Schulman KA, Weinfurt KP; HF-ACTION Investigators (**McCullough PA** Site Investigator). Outcomes, health policy, and managed care: relationships between patient-reported outcome measures and clinical measures in outpatients with heart failure. *Am Heart J*. 2009 Oct;158(4 Suppl):S64-71. PMID: 19782791
- M264) Forman DE, Clare R, Kitzman DW, Ellis SJ, Fleg JL, Chiara T, Fletcher G, Kraus WE; HF-ACTION Investigators (**McCullough PA**). Relationship of age and exercise performance in patients with heart failure: the HF-ACTION study. *Am Heart J*. 2009 Oct;158(4 Suppl):S6-S15. PMID: 19782790



- M265) Atchley AE, Kitzman DW, Whellan DJ, Iskandrian AE, Ellis SJ, Pagnanelli RA, Kao A, Abdul-Nour K, O'Connor CM, Ewald G, Kraus WE, Borges-Neto S; HF-ACTION Investigators (**McCullough PA**). Myocardial perfusion, function, and dyssynchrony in patients with heart failure: baseline results from the single-photon emission computed tomography imaging ancillary study of the Heart Failure and A Controlled Trial Investigating Outcomes of Exercise TraiNing (HF-ACTION) Trial. *Am Heart J*. 2009 Oct;158(4 Suppl):S53-63. PMID: 19782789
- M266) Gardin JM, Leifer ES, Fleg JL, Whellan D, Kokkinos P, Leblanc MH, Wolfel E, Kitzman DW; HF-ACTION Investigators (**McCullough PA**). Relationship of Doppler-Echocardiographic left ventricular diastolic function to exercise performance in systolic heart failure: the HF-ACTION study. *Am Heart J*. 2009 Oct;158(4 Suppl):S45-52. PMID: 19782788
- M267) Felker GM, Whellan D, Kraus WE, Clare R, Zannad F, Donahue M, Adams K, McKelvie R, Piña IL, O'Connor CM; HF-ACTION Investigators (**McCullough PA**). N-terminal pro-brain natriuretic peptide and exercise capacity in chronic heart failure: data from the Heart Failure and a Controlled Trial Investigating Outcomes of Exercise Training (HF-ACTION) study. *Am Heart J*. 2009 Oct;158(4 Suppl):S37-44. PMID: 19782787
- M268) Horwich TB, Leifer ES, Brawner CA, Fitz-Gerald MB, Fonarow GC; HF-ACTION Investigators (**McCullough PA**). The relationship between body mass index and cardiopulmonary exercise testing in chronic systolic heart failure. *Am Heart J*. 2009 Oct;158(4 Suppl):S31-6. PMID: 19782786
- M269) Russell SD, Saval MA, Robbins JL, Ellestad MH, Gottlieb SS, Handberg EM, Zhou Y, Chandler B; HF-ACTION Investigators (**McCullough PA**). New York Heart Association functional class predicts exercise parameters in the current era. *Am Heart J*. 2009 Oct;158(4 Suppl):S24-30. PMID: 19782785
- M270) Piña IL, Kokkinos P, Kao A, Bittner V, Saval M, Clare B, Goldberg L, Johnson M, Swank A, Ventura H, Moe G, Fitz-Gerald M, Ellis SJ, Vest M, Cooper L, Whellan D; HF-ACTION Investigators (**McCullough PA**). Baseline differences in the HF-ACTION trial by sex. *Am Heart J*. 2009 Oct;158(4 Suppl):S16-23. PMID: 19782784
- M271) O'Connor CM, Whellan DJ; HF-ACTION Investigators (**McCullough PA**). Understanding heart failure through the HF-ACTION baseline characteristics. *Am Heart J*. 2009 Oct;158(4 Suppl):S1-5. PMID: 19782783
- M272) **McCullough PA**, Tumlin JA. Prostaglandin-Based Renal Protection Against Contrast-Induced Acute Kidney Injury. *Circulation*. 2009 Nov 3;120(18):1749-51. PMID: 19841295
- M273) **McCullough PA**, Khan M, James J. Serum cystatin C in the estimation of glomerular filtration on chronic Angiotensin-converting enzyme inhibitor therapy: an illustrative case report. *J Clin Hypertens (Greenwich)*. 2009 Nov;11(11):651-5. PMID: 19878376

- M274) Agrawal V, Agarwal M, Ghosh AK, Barnes MA, **McCullough PA**. Identification and Management of Chronic Kidney Disease Complications by Internal Medicine Residents: A National Survey. *Am J Ther*. 2009 Nov 14. PMID: 19918169
- M275) Zalesin KC, Franklin BA, Lillystone MA, Shamoun T, Krause KR, Chengelis DL, Mucci SJ, Shaheen KW, **McCullough PA**. Differential Loss of Fat and Lean Mass in the Morbidly Obese after Bariatric Surgery. *Metab Syndr Relat Disord*. 2010 Feb;8(1):15-20. PMID: 19929598
- M276) Lubanski MS, **McCullough PA**. Kidney's role in hypertension. *Minerva Cardioangiol*. 2009 Dec;57(6):743-59. PMID: 19942846
- M277) Agrawal V, Rai B, Fellows J, **McCullough PA**. In-hospital outcomes with thrombolytic therapy in patients with renal dysfunction presenting with acute ischaemic stroke. *Nephrol Dial Transplant*. 2010 Apr;25(4):1150-7. Epub 2009 Nov 27. PMID: 19945951
- M278) **McCullough PA**, Chinnaiyan KM. Annual progression of coronary calcification in trials of preventive therapies: a systematic review. *Arch Intern Med*. 2009 Dec 14;169(22):2064-70. PMID: 20008688
- M279) Ronco C, **McCullough P**, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bellomo R, Berl T, Bobek I, Cruz DN, Daliendo L, Davenport A, Haapio M, Hillege H, House AA, Katz N, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Cardio-renal syndromes: report from the consensus conference of the Acute Dialysis Quality Initiative. *Eur Heart J*. 2010 Mar;31(6):703-11. Epub 2009 Dec 25. PMID: 20037146
- M280) Whaley-Connell A, Pavey BS, **McCullough PA**, Saab G, Li S, McFarlane SI, Chen SC, Vassalotti JA, Collins AJ, Bakris G, Sowers JR; KEEP Investigators. Dysglycemia predicts cardiovascular and kidney disease in the Kidney Early Evaluation Program. *J Clin Hypertens (Greenwich)*. 2010 Jan;12(1):51-8. PMID: 20047632
- M281) **McCullough PA**, Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Jurkovitz C, McFarlane S, Obialo C, Sowers J, Stevens L, Vassalotti JA, Bakris GL; on Behalf of the KEEP Investigators. Cardiovascular risk modification in participants with coronary disease screened by the Kidney Early Evaluation Program. *Intern Med J*. 2010 Dec;40(12):833-41. doi: 10.1111/j.1445-5994.2009.02158.x. PMID: 21199222
- M282) Vassalotti JA, Li S, **McCullough PA**, Bakris GL. Kidney Early Evaluation Program: A Community-Based Screening Approach to Address Disparities in Chronic Kidney Disease. *Semin Nephrol*. 2010 Jan;30(1):66-73. PMID: 20116650
- M283) Trivax JE, Franklin BA, Goldstein JA, Chinnaiyan KM, Gallagher MJ, Dejong AT, Colar JM, Haines DE, **McCullough PA**. Acute Cardiac Effects of Marathon Running. *J Appl Physiol*. 2010 May;108(5):1148-53. Epub 2010 Feb 11. PMID: 20150567

- M284) **McCullough PA**, Vassalotti JA, Collins AJ, Chen SC, Bakris GL. NKF's Kidney Early Evaluation Program (KEEP) annual data report 2009: executive summary. *Am J Kidney Dis.* 2010 Mar;55(3 Suppl 2):S1-3. PMID: 20172443
- M285) Stevens LA, Li S, Wang C, Huang C, Becker BN, Bombback AS, Brown WW, Burrows NR, Jurkovitz CT, McFarlane SI, Norris KC, Shlipak M, Whaley-Connell AT, Chen SC, Bakris GL, **McCullough PA**. Prevalence of CKD and comorbid illness in elderly patients in the United States: results from the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis.* 2010 Mar;55(3 Suppl 2):S23-33. PMID: 20172445
- M286) Bombback AS, Kshirsagar AV, Whaley-Connell AT, Chen SC, Li S, Klemmer PJ, **McCullough PA**, Bakris GL. Racial differences in kidney function among individuals with obesity and metabolic syndrome: results from the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis.* 2010 Mar;55(3 Suppl 2):S4-S14. PMID: 20172446
- M287) Bagshaw SM, Cruz DN, Aspromonte N, Daliento L, Ronco F, Sheinfeld G, Anker SD, Anand I, Bellomo R, Berl T, Bobek I, Davenport A, Haapio M, Hillege H, House A, Katz N, Maisel A, Mankad S, **McCullough P**, Mebazaa A, Palazzuoli A, Ponikowski P, Shaw A, Soni S, Vescovo G, Zamperetti N, Zanco P, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) Consensus Group. Epidemiology of cardio-renal syndromes: workgroup statements from the 7th ADQI Consensus Conference. *Nephrol Dial Transplant.* 2010 May;25(5):1406-16. Epub 2010 Feb 25. PMID: 20185818
- M288) **McCullough PA**. Transplantation: Coronary angiography prior to renal transplantation. *Nat Rev Nephrol.* 2010 Mar;6(3):136-7. PMID: 20186230
- M289) **McCullough PA**, Verrill TA. Cardiorenal interaction: appropriate treatment of cardiovascular risk factors to improve outcomes in chronic kidney disease. *Postgrad Med.* 2010 Mar;122(2):25-34. PMID: 20203453
- M290) Toth PP, **McCullough PA**, Wegner MS, Colley KJ. Lipoprotein-associated phospholipase A2: role in atherosclerosis and utility as a cardiovascular biomarker. *Expert Rev Cardiovasc Ther.* 2010 Mar;8(3):425-38. PMID: 20222820
- M291) Stolker JM, **McCullough PA**, Rao S, Inzucchi SE, Spertus JA, Maddox TM, Masoudi FA, Xiao L, Kosiborod M. Pre-procedural glucose levels and the risk for contrast-induced acute kidney injury in patients undergoing coronary angiography. *J Am Coll Cardiol.* 2010 Apr 6;55(14):1433-40. PMID: 20359592
- M292) House AA, Anand I, Bellomo R, Cruz D, Bobek I, Anker SD, Aspromonte N, Bagshaw S, Berl T, Daliento L, Davenport A, Haapio M, Hillege H, **McCullough P**, Katz N, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Definition and classification of Cardio-Renal Syndromes: workgroup statements from the 7th

ADQI Consensus Conference. Nephrol Dial Transplant. 2010 May;25(5):1416-20. Epub 2010 Mar 12. PMID: 20228069

M293) Zalesin KC, Franklin BA, Miller WL, Nori Janosz KE, Veri Silvia, Odom JO, **McCullough PA**. Preventing Weight Regain After Bariatric Surgery: An Overview of Lifestyle and Psychosocial Modulators. American Journal of Lifestyle Medicine, Vol. 4, No. 2, 113-120 (2010)  
DOI:10.1177/1559827609351227

M294) **McCullough PA**, Haapio M, Mankad S, Zamperetti N, Massie B, Bellomo R, Berl T, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bobek I, Cruz DN, Daliento L, Davenport A, Hillege H, House AA, Katz N, Maisel A, Mebazaa A, Palazzuoli A, Ponikowski P, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zanco P, Ronco C, Berl T; for the Acute Dialysis Quality Initiative (ADQI) Consensus Group. Prevention of cardio-renal syndromes: workgroup statements from the 7th ADQI Consensus Conference. Nephrol Dial Transplant. 2010 Jun;25(6):1777-84. Epub 2010 Apr 6. PMID: 20375030

M295) Vanhecke TE, Kim R, Raheem SZ, **McCullough PA**. Myocardial ischemia in patients with diastolic dysfunction and heart failure. Curr Cardiol Rep. 2010 May;12(3):216-22. PMID: 20424964

M296) Ronco C, **McCullough PA**, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bellomo R, Berl T, Bobek I, Cruz DN, Daliento L, Davenport A, Haapio M, Hillege H, House A, Katz NM, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P. Cardiorenal Syndromes: An Executive Summary from the Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). Contrib Nephrol. 2010;165:54-67. Epub 2010 Apr 20. PMID: 20427956

M297) **McCullough PA**. Prevention of Cardiorenal Syndromes. Contrib Nephrol. 2010;165:101-111. Epub 2010 Apr 20. PMID: 20427960

M298) Signori C, Zalesin KC, Franklin B, Miller WL, **McCullough PA**. Effect of Gastric Bypass on Vitamin D and Secondary Hyperparathyroidism. Obes Surg. 2010 Jul;20(7):949-52. PMID: 20443152

M299) Davenport A, Anker SD, Mebazaa A, Palazzuoli A, Vescovo G, Bellomo R, Ponikowski P, Anand I, Aspromonte N, Bagshaw S, Berl T, Bobek I, Cruz DN, Daliento L, Haapio M, Hillege H, House A, Katz N, Maisel A, Mankad S, **McCullough P**, Ronco F, Shaw A, Sheinfeld G, Soni S, Zamperetti N, Zanco P, Ronco C; Acute Dialysis Quality Initiative (ADQI) consensus group. ADQI 7: the clinical management of the Cardio-Renal syndromes: work group statements from the 7th ADQI consensus conference. Nephrol Dial Transplant. 2010 Jul;25(7):2077-89. Epub 2010 May 20. PMID: 20494894

M300) Szczech LA, Granger CB, Dasta JF, Amin A, Peacock WF, **McCullough PA**, Devlin JW, Weir MR, Katz JN, Anderson FA Jr, Wyman A, Varon J; for the Studying the Treatment of Acute

Hypertension Investigators. Acute Kidney Injury and Cardiovascular Outcomes in Acute Severe Hypertension. *Circulation*. 2010 May 25;121(20):2183-91. Epub 2010 May 10. PMID: 20458014

- M301) Sica D, Oren RM, Gottwald MD, Mills RM; Scios 351 Investigators.(**McCullough PA**, Investigator) Natriuretic and neurohormonal responses to nesiritide, furosemide, and combined nesiritide and furosemide in patients with stable systolic dysfunction. *Clin Cardiol*. 2010 Jun;33(6):330-6.PMID: 20556802
- M302) Soriano-Co M, Vanhecke TE, Franklin BA, Sangal RB, Hakmeh B, **McCullough PA**. Increased central adiposity in morbidly obese patients with obstructive sleep apnoea. *Intern Med J*. 2011 Jul;41(7):560-6. PMID: 20546056
- M303) **McCullough PA**, Zerka M, Heimbach E, Musialczyk M, Spring T, deJong A, Jafri SS, Coleman C, Washington T, Raheem S, Vanhecke T, Zalesin KC. Audiocardiography in the cardiovascular evaluation of the morbidly obese. *Clin Physiol Funct Imaging*. 2010 Sep;30(5):369-74. PMID: 20618361
- M304) **McCullough PA**, Verrill T. Lessons learned from acute myocardial infarction in patients with chronic kidney disease. *J Intern Med*. 2010 Jul;268(1):38-9. No abstract available. PMID: 20642644
- M305) **McCullough PA**, Franklin BA, Leifer E, Fonarow GC. Impact of Reduced Kidney Function on Cardiopulmonary Fitness in Patients with Systolic Heart Failure. *Am J Nephrol*. 2010 Jul 22;32(3):226-233. PMID: 20664198
- M306) Warnock DG, Muntner P, **McCullough PA**, Zhang X, McClure LA, Zakai N, Cushman M, Newsome BB, Kewalramani R, Steffes MW, Howard G, McClellan WM; REGARDS Investigators. Kidney Function, Albuminuria, and All-Cause Mortality in the REGARDS (Reasons for Geographic and Racial Differences in Stroke) Study. *Am J Kidney Dis*. 2010 Nov;56(5):861-71. Epub 2010 Aug 8. PMID: 20692752
- M307) **McCullough PA**. Editorial: Contrast-Induced Acute Kidney Injury: Shifting from Elective to Urgent Coronary Intervention. *J Interv Cardiol*. 2010 Oct;23(5):467-9. doi: 10.1111/j.1540-8183.2010.00589.x. Epub 2010 Aug 19. PMID: 20731756
- M308) Bombback AS, Rekhtman Y, Whaley-Connell AT, Kshirsagar AV, Sowers JR, Chen SC, Li S, Chinnaiyan KM, Bakris GL, **McCullough PA**. Gestational diabetes alone, in the absence of subsequent diabetes, is associated with microalbuminuria: results from the Kidney Early Evaluation Program (KEEP). *Diabetes Care*. 2010 Dec;33(12):2586-91. Epub 2010 Aug 31. PMID: 20807871
- M309) Neyou A, O'Neil B, Berman AD, Boura JA, **McCullough PA**. Determinants of markedly increased B-type natriuretic peptide in patients with ST-segment elevation myocardial infarction. *Am J Emerg Med*. 2011 Feb;29(2):141-7. Epub 2010 Mar 25. PMID: 20825778

- M310) **McCullough PA.** Integration of the clinical laboratory in cardiovascular medicine. Rev Cardiovasc Med. 2010;11 Suppl 2:S1-2. PMID: 20700097
- M311) Lepor NE, **McCullough PA.** Differential diagnosis and overlap of acute chest discomfort and dyspnea in the emergency department. Rev Cardiovasc Med. 2010;11 Suppl 2:S13-23. PMID: 20700098
- M312) de Lemos JA, Peacock WF, **McCullough PA.** Natriuretic peptides in the prognosis and management of acute coronary syndromes. Rev Cardiovasc Med. 2010;11 Suppl 2:S24-34. PMID: 20700099
- M313) **McCullough PA,** Peacock WF, O'Neil B, de Lemos JA. Capturing the pathophysiology of acute coronary syndromes with circulating biomarkers. Rev Cardiovasc Med. 2010;11 Suppl 2:S3-12. PMID: 20700100
- M314) **McCullough PA,** Peacock WF, O'Neil B, de Lemos JA, Lepor NE, Berkowitz R. An evidence-based algorithm for the use of B-type natriuretic testing in acute coronary syndromes. Rev Cardiovasc Med. 2010;11 Suppl 2:S51-65. PMID: 20700103
- M315) Zalesin KC, Miller WM, Franklin B, Mudugal D, Rao Buragadda A, Boura J, Nori-Janosz K, Chengelis DL, Krause KR, **McCullough PA.** Vitamin a deficiency after gastric bypass surgery: an underreported postoperative complication. J Obes. 2011;2011. pii: 760695. Epub 2010 Sep 14. PMID: 20871833
- M316) Maisel AS, Katz N, Hillege HL, Shaw A, Zanco P, Bellomo R, Anand I, Anker SD, Aspromonte N, Bagshaw SM, Berl T, Bobek I, Cruz DN, Daliento L, Davenport A, Haapio M, House AA, Mankad S, **McCullough P,** Mebazaa A, Palazzuoli A, Ponikowski P, Ronco F, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Biomarkers in kidney and heart disease. Nephrol Dial Transplant. 2011 Jan;26(1):62-74. Epub 2010 Oct 26 PMID: 20978142
- M317) **McCullough PA.** Cardiorenal syndromes: pathophysiology to prevention. Int J Nephrol. 2010 Dec 1;2010:762590. PMID: 2115153
- M318) **McCullough PA,** Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Jurkovitz C, McFarlane S, Obialo C, Sowers J, Stevens L, Vassalotti JA, Bakris GL. Cardiovascular risk modification in participants with coronary disease screened by the Kidney Early Evaluation Program. Intern Med J. 2010 Dec;40(12):833-41. doi: 10.1111/j.1445-5994.2009.02158.x. PMID: 21199222
- M319) Lubanski MS, Vanhecke TE, Chinnaiyan KM, Franklin BA, **McCullough PA.** Subclinical coronary atherosclerosis identified by coronary computed tomographic angiography in

asymptomatic morbidly obese patients. *Heart Int.* 2010 Dec 31;5(2):e15. PubMed PMID: 21977300

M320) Rose JJ, Vanhecke TE, **McCullough PA**. Subarachnoid hemorrhage with neurocardiogenic stunning. *Rev Cardiovasc Med.* 2010 Fall;11(4):254-63. PMID: 21389917

M321) **McCullough PA**. Micronutrients and cardiorenal disease: insights into novel assessments and treatment. *Blood Purif.* 2011;31(1-3):177-85. Epub 2011 Jan 10. PMID: 21228587

M322) Alexander P, David S, **McCullough PA**. Drug-eluting coronary stents in patients with kidney disease. *Am J Kidney Dis.* 2011 Feb;57(2):188-9. No abstract available. PMID: 21251538

M323) **McCullough PA**, Chinnaiyan KM, Gallagher MJ, Colar JM, Geddes T, Gold JM, Trivax JE. Changes in renal markers and acute kidney injury after marathon running. *Nephrology (Carlton).* 2011 Feb;16(2):194-9. doi: 10.1111/j.1440-1797.2010.01354.x. PMID: 21272132

M324) **McCullough PA**, Ahmad A. Cardiorenal syndromes. *World J Cardiol.* 2011 Jan 26;3(1):1-9. PMID: 21286212

M325) Poirier P, Cornier MA, Mazzone T, Stiles S, Cummings S, Klein S, **McCullough PA**, Ren Fielding C, Franklin BA; on behalf of the AHA Obesity Committee of the Council on Nutrition, Physical Activity, and Metabolism. Bariatric Surgery and Cardiovascular Risk Factors: A Scientific Statement From the AHA. *Circulation.* 2011 Apr 19;123(15):1683-701. Epub 2011 Mar 14. PMID: 21403092

M326) Goel SK, Bellovich K, **McCullough PA**. Treatment of severe metastatic calcification and calciphylaxis in dialysis patients. Goel SK, Bellovich K, McCullough PA. *Int J Nephrol.* 2011 Feb 24;2011:701603. PMID: 21423552

M327) **McCullough PA**, El-Ghoroury M, Yamasaki H. Early detection of acute kidney injury with neutrophil gelatinase-associated lipocalin. *J Am Coll Cardiol.* 2011 Apr 26;57(17):1762-4. PMID: 21511112

M328) Madder RD, Hickman L, Crimmins GM, Puri M, Marinescu V, **McCullough PA**, Safian RD. Validity of Estimated Glomerular Filtration Rates for Assessment of Baseline and Serial Renal Function in Patients with Atherosclerotic Renal Artery Stenosis: Implications for Clinical Trials of Renal Revascularization. *Circ Cardiovasc Interv.* 2011 Jun 1;4(3):219-25. Epub 2011 Apr 26. PMID: 21521835

M329) Whaley-Connell A, Sowers JR, **McCullough PA**. The role of oxidative stress in the metabolic syndrome. *Rev Cardiovasc Med.* 2011;12(1):21-9. PMID: 21546885

- M330) **McCullough PA**, Capasso P. Patient Discomfort Associated with the Use of Intra-arterial Iodinated Contrast Media: A Meta-Analysis of Comparative Randomized Controlled Trials. *BMC Med Imaging*. 2011 May 24;11:12. doi:10.1186/1471-2342-11-12. PMID: 21609484
- M331) Friedewald VE, Emmett M, **McCullough P**, Yancy CW, Roberts WC. The Editor's Roundtable: Anemia and Cardiovascular Disease. *Am J Cardiol*. 2011 Jun 1;107(11):1630-5. PMID: 21575751
- M332) **McCullough PA**, Maynard RC. Treatment disparities in acute coronary syndromes, heart failure, and kidney disease. *Contrib Nephrol*. 2011;171:68-73. Epub 2011 May 23. PMID: 21625092
- M333) **McCullough PA**, Vassalotti JA, Collins AJ, Chen SC, Bakris GL, Whaley-Connell AT. National Kidney Foundation's Kidney Early Evaluation Program (KEEP) Annual Data Report 2010: Executive Summary. *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S1-3. PMID: 21338845
- M334) McFarlane SI, **McCullough PA**, Sowers JR, Soe K, Chen SC, Li S, Vassalotti JA, Stevens LA, Salifu MO, Kurella Tamura M, Bombardier AS, Norris KC, Collins AJ, Bakris GL, Whaley-Connell AT; KEEP Steering Committee. Comparison of the CKD Epidemiology Collaboration (CKD-EPI) and Modification of Diet in Renal Disease (MDRD) Study Equations: Prevalence of and Risk Factors for Diabetes Mellitus in CKD in the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S24-31. PMID: 21338847
- M335) **McCullough PA**, Brown WW, Gannon MR, Vassalotti JA, Collins AJ, Chen SC, Bakris GL, Whaley-Connell AT. Sustainable Community-Based CKD Screening Methods Employed by the National Kidney Foundation's Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S4-8. PMID: 21338848
- M336) Stevens LA, Li S, Kurella Tamura M, Chen SC, Vassalotti JA, Norris KC, Whaley-Connell AT, Bakris GL, **McCullough PA**. Comparison of the CKD Epidemiology Collaboration (CKD-EPI) and Modification of Diet in Renal Disease (MDRD) Study Equations: Risk Factors for and Complications of CKD and Mortality in the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S9-S16. PMID: 21338849
- M337) Herzog CA, Asinger RW, Berger AK, Charytan DM, Díez J, Hart RG, Eckardt KU, Kasiske BL, **McCullough PA**, Passman RS, DeLoach SS, Pun PH, Ritz E. Cardiovascular disease in chronic kidney disease. A clinical update from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney Int*. 2011 Sep;80(6):572-86. PMID: 21750584
- M338) Gorges RD, Burke P, David W, Cole A, **McCullough PA**, David SW. Emerging practice patterns and outcomes of percutaneous aortic balloon valvuloplasty in patients with severe aortic stenosis. *Rev Cardiovasc Med*. 2011;12(2):e60-7. PMID: 21796084



- M339) Hanna K, Seder CW, Chengelis D, **McCullough PA**, Krause K. Shorter circular staple is height associated with lower anastomotic stricture rate in laparoscopic gastric bypass. *Surg Obes Relat Dis.* 2012 Mar-Apr;8(2):181-4. PMID: 21798822
- M340) Miller WM, Spring TJ, Zalesin KC, Kaeding KR, Nori Janosz KE, **McCullough PA**, Franklin BA. Lower Than Predicted Resting Metabolic Rate Is Associated With Severely Impaired Cardiorespiratory Fitness in Obese Individuals. *Obesity (Silver Spring).* 2012 Mar;20(3):505-11. PMID: 21836645
- M341) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. *Med Clin North Am.* 2011 Sep;95(5):919-37. PMID: 21855700
- M342) Khouri Y, Steigerwalt SP, Alsamara M, **McCullough PA**. What is the Ideal Blood Pressure Goal for Patients with Stage III or Higher Chronic Kidney Disease? *Curr Cardiol Rep.* 2011 Dec;13(6):492-501. PMID: 21887524
- M343) Brown JR, **McCullough PA**, Splaine ME, Davies L, Ross CS, Dauerman HL, Robb JF, Boss R, Goldberg DJ, Fedele FA, Kellett MA, Phillips WJ, Ver Lee PN, Nelson EC, Mackenzie TA, O'Connor GT, Sarnak MJ, Malenka DJ; for the Northern New England Cardiovascular Disease Study Group. How do centres begin the process to prevent contrast-induced acute kidney injury: a report from a new regional collaborative. *BMJ Qual Saf.* 2012 Jan;21(1):54-62. PMID: 21890755
- M344) Horwich TB, Broderick S, Chen L, **McCullough PA**, Strzelczyk T, Kitzman DW, Fletcher G, Safford RE, Ewald G, Fine LJ, Ellis SJ, Fonarow GC. Relation Among Body Mass Index, Exercise Training, and Outcomes in Chronic Systolic Heart Failure. *Am J Cardiol.* 2011 Dec 15;108(12):1754-9. PMID: 21907317
- M345) **McCullough PA**, Khambatta S, Jazrawi A. Minimizing the renal toxicity of iodinated contrast. *Circulation.* 2011 Sep 13;124(11):1210-1. PMID: 21911794
- M346) Marinescu V, **McCullough PA**. Nutritional and micronutrient determinants of idiopathic dilated cardiomyopathy: diagnostic and therapeutic implications. *Expert Rev Cardiovasc Ther.* 2011 Sep;9(9):1161-70. PubMed PMID: 21932959
- M347) **McCullough PA**, Brown JR. Effects of Intra-Arterial and Intravenous Iso-Osmolar Contrast Medium (Iodixanol) on the Risk of Contrast-Induced Acute Kidney Injury: A Meta-Analysis. *Cardiorenal Med.* 2011;1(4):220-234. PMID: 22164156
- M348) **McCullough PA**, Al-Ejel F, Maynard RC. Lipoprotein subfractions and particle size in end-stage renal disease. *Clin J Am Soc Nephrol.* 2011 Dec;6(12):2738-9. PMID: 22157706
- M349) Lepor NE, **McCullough PA**. Assessing appropriateness of coronary intervention. *Rev Cardiovasc Med.* 2011;12(3):170-1. PMID: 22145194

- M350) **McCullough PA**, Ahmed AB, Zughaib MT, Glanz ED, Di Loreto MJ. Treatment of hypertriglyceridemia with fibric Acid derivatives: impact on lipid subfractions and translation into a reduction in cardiovascular events. *Rev Cardiovasc Med*. 2011;12(4):173-85. PMID: 22249508.
- M351) Palazzuoli A, Beltrami M, Nodari S, **McCullough PA**, Ronco C. Clinical impact of renal dysfunction in heart failure. *Rev Cardiovasc Med*. 2011;12(4):186-99. PMID: 22249509.
- M352) **McCullough PA**, Olobatoke A, Vanhecke TE. Galectin-3: a novel blood test for the evaluation and management of patients with heart failure. *Rev Cardiovasc Med*. 2011;12(4):200-10. PMID: 22249510.
- M353) Vanhecke TE, Franklin BA, Soman P, Lahiri A, Mieres JH, Sias T, Calnon DA, Wolinsky D, Udelson JE, **McCullough PA**. Influence of myocardial ischemia on outcomes in patients with systolic versus non-systolic heart failure. *Am J Cardiovasc Dis*. 2011;1(2):167-75. Epub 2011 Jul 27. PMID: 22254196.
- M354) Whaley-Connell A, Bombback AS, McFarlane SI, Li S, Roberts T, Chen SC, Collins AJ, Norris K, Bakris GL, Sowers JR, **McCullough PA**; on behalf of the Kidney Early Evaluation Program Investigators. Diabetic Cardiovascular Disease Predicts Chronic Kidney Disease Awareness in the Kidney Early Evaluation Program. *Cardiorenal Med*. 2011 Jan;1(1):45-52. Epub 2011 Jan 17. PMID: 22258465.
- M355) Saab G, Whaley-Connell A, Bombeck A, Kurella Tamura M, Li S, Chen SC, McFarlane SI, Sowers JR, Norris K, Bakris GL, **McCullough PA**; for the Kidney Early Evaluation Program Investigators. The Association between Parathyroid Hormone Levels and the Cardiorenal Metabolic Syndrome in Non-Diabetic Chronic Kidney Disease. *Cardiorenal Med*. 2011;1(2):123-130. Epub 2011 Apr 15. PMID: 22258399.
- M356) Trivax JE, **McCullough PA**. Phidippides Cardiomyopathy: A Review and Case Illustration. *Clin Cardiol*. 2012 Feb;35(2):69-73. PMID: 22222888.
- M357) Peralta CA, Norris KC, Li S, Chang TI, Tamura MK, Jolly SE, Bakris G, **McCullough PA**, Shlipak M; for the KEEP Investigators. Blood Pressure Components and End-stage Renal Disease in Persons With Chronic Kidney Disease: The Kidney Early Evaluation Program (KEEP). *Arch Intern Med*. 2012 Jan 9;172(1):41-47. PMID: 22232147.
- M358) **McCullough PA**, Assad H. Diagnosis of Cardiovascular Disease in Patients with Chronic Kidney Disease. *Blood Purif*. 2012 Jan 20;33(1-3):112-118. [Epub ahead of print] PubMed PMID: 22269967.
- M359) Amin AP, Salisbury AC, **McCullough PA**, Gosch K, Spertus JA, Venkitachalam L, Stolker JM, Parikh CR, Masoudi FA, Jones PG, Kosiborod M. Trends in the incidence of acute kidney injury in

patients hospitalized with acute myocardial infarction. Arch Intern Med. 2012 Feb 13;172(3):246-53. PubMed PMID: 22332157.

- M360) Whaley-Connell AT, Vassalotti JA, Collins AJ, Chen SC, **McCullough PA**. National Kidney Foundation's Kidney Early Evaluation Program (KEEP) Annual Data Report 2011: Executive Summary. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S1-4. PubMed PMID: 22339897; PubMed Central PMCID: PMC3285421.
- M361) Shah A, Fried LF, Chen SC, Qiu Y, Li S, Cavanaugh KL, Norris KC, Whaley-Connell AT, **McCullough PA**, Mehrotra R; KEEP Investigators. Associations Between Access to Care and Awareness of CKD. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S16-23. PubMed PMID: 22339898.
- M362) Jurkovitz CT, Elliott D, Li S, Saab G, Bombback AS, Norris KC, Chen SC, **McCullough PA**, Whaley-Connell AT; KEEP Investigators. Physician Utilization, Risk-Factor Control, and CKD Progression Among Participants in the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S24-33. PubMed PMID: 22339899.
- M363) Saab G, Chen SC, Li S, Bombback AS, Whaley-Connell AT, Jurkovitz CT, Norris KC, **McCullough PA**; KEEP Investigators. Association of Physician Care With Mortality in Kidney Early Evaluation Program (KEEP) Participants. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S34-9. PubMed PMID: 22339900.
- M364) Agrawal V, Jaar BG, Frisby XY, Chen SC, Qiu Y, Li S, Whaley-Connell AT, **McCullough PA**, Bombback AS; KEEP Investigators. Access to Health Care Among Adults Evaluated for CKD: Findings From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S5-S15. PubMed PMID: 22339901.
- M365) Ismail Y, Kasmikha Z, Green HL, **McCullough PA**. Cardio-renal syndrome type 1: epidemiology, pathophysiology, and treatment. Semin Nephrol. 2012 Jan;32(1):18-25. PubMed PMID: 22365158.
- M366) Khambatta S, Farkouh ME, Wright RS, Reeder GS, **McCullough PA**, Smars PA, Hickson LJ, Best PJ. Chronic kidney disease as a risk factor for acute coronary syndromes in patients presenting to the emergency room with chest pain. Transl Res. 2012 May;159(5):391-6. Epub 2012 Jan 9. PubMed PMID: 22500512.
- M367) Whaley-Connell A, Shlipak MG, Inker LA, Kurella Tamura M, Bombback AS, Saab G, Szpunar SM, McFarlane SI, Li S, Chen SC, Norris K, Bakris GL, **McCullough PA**; Kidney Early Evaluation Program Investigators. Awareness of Kidney Disease and Relationship to End-stage Renal Disease and Mortality. Am J Med. 2012 Jul;125(7):661-9. PubMed PMID: 22626510.
- M368) **McCullough PA**, Williams FJ, Stivers DN, Cannon L, Dixon S, Alexander P, Runyan D, David S. Neutrophil Gelatinase-Associated Lipocalin: A Novel Marker of Contrast Nephropathy Risk. Am J Nephrol. 2012 May 23;35(6):509-514. PubMed PMID: 22627273.

- M369) O'Keefe JH, Patil HR, Lavie CJ, Magalski A, Vogel RA, **McCullough PA**. Potential adverse cardiovascular effects from excessive endurance exercise. *Mayo Clin Proc.* 2012 Jun;87(6):587-95. PubMed PMID: 22677079.
- M370) **McCullough PA**, Ali S. Cardiac and renal function in patients with type 2 diabetes who have chronic kidney disease: potential effects of bardoxolone methyl. *Drug Des Devel Ther.* 2012;6:141-9. Epub 2012 Jun 14. PubMed PMID: 22787387; PubMed Central PMCID: PMC3392144.
- M371) O'Donoghue ML, Vaidya A, Afsal R, Alfredsson J, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Windhausen F, Sabatine MS. An Invasive or Conservative Strategy in Patients With Diabetes Mellitus and Non-ST-Segment Elevation Acute Coronary Syndromes: A Collaborative Meta-Analysis of Randomized Trials. *J Am Coll Cardiol.* 2012 Jul 10;60(2):106-11. PubMed PMID: 22766336.
- M372) Ronco C, Cicoira M, **McCullough PA**. Cardiorenal Syndrome Type 1: Pathophysiological Crosstalk Leading to Combined Heart and Kidney Dysfunction in the Setting of Acutely Decompensated Heart Failure. *J Am Coll Cardiol.* 2012 Sep 18;60(12):1031-42. PubMed PMID: 22840531.
- M373) Ronco C, Stacul F, **McCullough PA**. Subclinical acute kidney injury (AKI) due to iodine-based contrast media. *Eur Radiol.* 2013 Feb;23(2):319-23. PubMed PMID: 22895617.
- M374) **McCullough PA**, Larsen T, Brown JR. Theophylline or aminophylline for the prevention of contrast-induced acute kidney injury. *Am J Kidney Dis.* 2012 Sep;60(3):338-9. PubMed PMID: 22901629.
- M375) Patil HR, O'Keefe JH, Lavie CJ, Magalski A, Vogel RA, **McCullough PA**. Cardiovascular damage resulting from chronic excessive endurance exercise. *Mo Med.* 2012 Jul-Aug;109(4):312-21. PubMed PMID: 22953596.
- M376) Bose S, Bomback AS, Mehta NN, Chen SC, Li S, Whaley-Connell A, Benjamin J, **McCullough PA**. Dysglycemia but not lipids is associated with abnormal urinary albumin excretion in diabetic kidney disease: a report from the Kidney Early Evaluation Program (KEEP). *BMC Nephrol.* 2012 Sep 7;13:104. doi:10.1186/1471-2369-13-104. PubMed PMID: 22958709.
- M377) Wilson GD, Geddes TJ, Pruetz BL, Thibodeau BJ, Murawka A, Colar JM, **McCullough PA**, Trivax JE. SELDI-TOF-MS Serum Profiling Reveals Predictors of Cardiac MRI Changes in Marathon Runners. *Int J Proteomics.* 2012;2012:679301. Epub 2012 Sep 3. PubMed PMID: 22988506; PubMed Central PMCID: PMC3439948.

- M378) **McCullough PA**, Cowan S. Mineralocorticoid receptor antagonists and mortality in heart failure with concurrent atrial fibrillation. *Circ Heart Fail*. 2012 Sep 1;5(5):550-1. PubMed PMID: 22991404.
- M379) Saab G, Bombback AS, McFarlane SI, Li S, Chen SC, **McCullough PA**, Whaley-Connell A; for the Kidney Early Evaluation Program Investigators. The Association of Parathyroid Hormone with ESRD and Pre-ESRD Mortality in the Kidney Early Evaluation Program. *J Clin Endocrinol Metab*. 2012 Dec;97(12):4414-21. PubMed PMID: 23066118.
- M380) Whaley-Connell A, Kurella Tamura M, **McCullough PA**. A Decade After the KDOQI CKD Guidelines: Impact on the National Kidney Foundation's Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2012 Nov;60(5):692-3. doi: 10.1053/j.ajkd.2012.08.008. PubMed PMID: 23067631.
- M381) **McCullough PA**, Di Loreto MJ. Fibrates and cardiorenal outcomes. *J Am Coll Cardiol*. 2012 Nov 13;60(20):2072-3. doi: 10.1016/j.jacc.2012.06.058. Epub 2012 Oct 17. PubMed PMID: 23083778.
- M382) Babayev R, Whaley-Connell A, Kshirsagar A, Klemmer P, Navaneethan S, Chen SC, Li S, **McCullough PA**, Bakris G, Bombback A; KEEP Investigators. Association of Race and Body Mass Index With ESRD and Mortality in CKD Stages 3-4: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2013 Mar;61(3):404-12. PubMed PMID: 23260275.
- M383) Pinto de Carvalho L, **McCullough PA**, Gao F, Sim LL, Tan HC, Foo D, Ooi YW, Richards AM, Chan MY, Yeo TC. Renal function and anaemia in acute myocardial infarction. *Int J Cardiol*. 2013 Sep 30;168(2):1397-401. PubMed PMID: 23305857.
- M384) Kashani K, Al-Khafaji A, Ardiles T, Artigas A, Bagshaw SM, Bell M, Bihorac A, Birkhahn R, Cely CM, Chawla LS, Davison DL, Feldkamp T, Forni LG, Gong MN, Gunnerson KJ, Haase M, Hackett J, Honore PM, Hoste EA, Joannes-Boyau O, Joannidis M, Kim P, Koyner JL, Laskowitz DT, Lissauer ME, Marx G, **McCullough PA**, Mullaney S, Ostermann M, Rimmele T, Shapiro NI, Shaw AD, Shi J, Sprague AM, Vincent JL, Vinsonneau C, Wagner L, Walker MG, Wilkerson RG, Zacharowski K, Kellum JA. Discovery and validation of cell cycle arrest biomarkers in human acute kidney injury. *Crit Care*. 2013 Feb 6;17(1):R25. [Epub ahead of print] PubMed PMID: 23388612.
- M385) Smith SW, Diercks DB, Nagurney JT, Hollander JE, Miller CD, Schrock JW, Singer AJ, Apple FS, **McCullough PA**, Ruff CT, Sesma A Jr, Peacock WF. Central versus local adjudication of myocardial infarction in a cardiac biomarker trial. *Am Heart J*. 2013 Mar;165(3):273-279.e1. doi: 10.1016/j.ahj.2012.12.012. Epub 2013 Jan 26. PubMed PMID: 23453092.
- M386) Whaley-Connell AT, Kurella Tamura M, Jurkovitz CT, Kosiborod M, **McCullough PA**. Advances in CKD Detection and Determination of Prognosis: Executive Summary of the National Kidney Foundation-Kidney Early Evaluation Program (KEEP) 2012 Annual Data Report. *Am J*

Kidney Dis. 2013 Apr;61(4 Suppl 2):S1-3. doi: 10.1053/j.ajkd.2013.01.006. PubMed PMID: 23507265; PubMed Central PMCID: PMC3608929.

- M387) Amin AP, Whaley-Connell AT, Li S, Chen SC, **McCullough PA**, Kosiborod MN; KEEP Investigators. The Synergistic Relationship Between Estimated GFR and Microalbuminuria in Predicting Long-term Progression to ESRD or Death in Patients With Diabetes: Results From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2013 Apr;61(4 Suppl 2):S12-23. doi: 10.1053/j.ajkd.2013.01.005. PubMed PMID: 23507266.
- M388) Jurkovitz CT, Li S, Norris KC, Saab G, Bombback AS, Whaley-Connell AT, **McCullough PA**; KEEP Investigators. Association Between Lack of Health Insurance and Risk of Death and ESRD: Results From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2013 Apr;61(4 Suppl 2):S24-32. doi: 10.1053/j.ajkd.2012.12.015. PubMed PMID: 23507267.
- M389) Chang TI, Li S, Chen SC, Peralta CA, Shlipak MG, Fried LF, Whaley-Connell AT, **McCullough PA**, Kurella Tamura M; KEEP Investigators. Risk Factors for ESRD in Individuals With Preserved Estimated GFR With and Without Albuminuria: Results From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2013 Apr;61(4 Suppl 2):S4-S11. doi: 10.1053/j.ajkd.2012.12.016. PubMed PMID: 23507268.
- M390) Narala KR, Hassan S, Lalonde TA, **McCullough PA**. Management of coronary atherosclerosis and acute coronary syndromes in patients with chronic kidney disease. Curr Probl Cardiol. 2013 May;38(5):165-206. doi: 10.1016/j.cpcardiol.2012.12.004. PubMed PMID: 23590761.
- M391) Mehrotra R, Peralta CA, Chen SC, Li S, Sachs M, Shah A, Norris K, Saab G, Whaley-Connell A, Kestenbaum B, **McCullough PA**. No independent association of serum phosphorus with risk for death or progression to end-stage renal disease in a large screen for chronic kidney disease. Kidney Int. 2013 Nov;84(5):989-97. PubMed PMID: 23615501.
- M392) Runyan D, Feldman D, **McCullough PA**, David S, Saba S, Gorges R. Long-term Follow-up of Lesion-specific Outcomes Comparing Drug-eluting Stents and Bare Metal Stents in Diseased Saphenous Vein Grafts. Rev Cardiovasc Med. 2013;14(1):1-6. PubMed PMID: 23651982.
- M393) Lepor NE, Fouchia DD, **McCullough PA**. New vistas for the treatment of obesity: turning the tide against the leading cause of morbidity and cardiovascular mortality in the developed world. Rev Cardiovasc Med. 2013;14(1):20-40. PubMed PMID: 23651984.
- M394) Weisbord SD, Gallagher M, Kaufman J, Cass A, Parikh CR, Chertow GM, Shunk KA, **McCullough PA**, Fine MJ, Mor MK, Lew RA, Huang GD, Conner TA, Brophy MT, Lee J, Soliva S, Palevsky PM. Prevention of Contrast-Induced AKI: A Review of Published Trials and the Design of the Prevention of Serious Adverse Events following Angiography (PRESERVE) Trial. Clin J Am Soc Nephrol. 2013 Sep;8(9):1618-31. PubMed PMID: 23660180

- M395) **McCullough PA**, Bouchard J, Waikar SS, Siew ED, Endre ZH, Goldstein SL, Koyner JL, Macedo E, Doi K, Di Somma S, Lewington A, Thadhani R, Chakravarthi R, Ice C, Okusa MD, Duranteau J, Doran P, Yang L, Jaber BL, Meehan S, Kellum JA, Haase M, Murray PT, Cruz D, Maisel A, Bagshaw SM, Chawla LS, Mehta RL, Shaw AD, Ronco C. Implementation of Novel Biomarkers in the Diagnosis, Prognosis, and Management of Acute Kidney Injury: Executive Summary from the Tenth Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:5-12. doi: 10.1159/000349962. Epub 2013 May 13. PubMed PMID: 23689652.
- M396) **McCullough PA**, Shaw AD, Haase M, Bouchard J, Waikar SS, Siew ED, Murray PT, Mehta RL, Ronco C. Diagnosis of acute kidney injury using functional and injury biomarkers: workgroup statements from the tenth acute dialysis quality initiative consensus conference. *Contrib Nephrol.* 2013;182:13-29. doi: 10.1159/000349963. Epub 2013 May 13. PubMed PMID: 23689653.
- M397) **McCullough PA**, Kellum JA, Haase M, Müller C, Damman K, Murray PT, Cruz D, House AA, Schmidt-Ott KM, Vescovo G, Bagshaw SM, Hoste EA, Briguori C, Braam B, Chawla LS, Costanzo MR, Tumlin JA, Herzog CA, Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C. Pathophysiology of the Cardiorenal Syndromes: Executive Summary from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:82-98. doi: 10.1159/000349966. Epub 2013 May 13. PubMed PMID: 23689657.
- M398) Haase M, Müller C, Damman K, Murray PT, Kellum JA, Ronco C, **McCullough PA**. Pathogenesis of Cardiorenal Syndrome Type 1 in Acute Decompensated Heart Failure: Workgroup Statements from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:99-116. doi: 10.1159/000349969. Epub 2013 May 13. PubMed PMID: 23689658.
- M399) Cruz DN, Schmidt-Ott KM, Vescovo G, House AA, Kellum JA, Ronco C, **McCullough PA**. Pathophysiology of Cardiorenal Syndrome Type 2 in Stable Chronic Heart Failure: Workgroup Statements from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:117-36. doi: 10.1159/000349968. Epub 2013 May 13. PubMed PMID: 23689659.
- M400) Bagshaw SM, Hoste EA, Braam B, Briguori C, Kellum JA, **McCullough PA**, Ronco C. Cardiorenal syndrome type 3: pathophysiologic and epidemiologic considerations. *Contrib Nephrol.* 2013;182:137-57. doi: 10.1159/000349971. Epub 2013 May 13. PubMed PMID: 23689660.
- M401) Tumlin JA, Costanzo MR, Chawla LS, Herzog CA, Kellum JA, **McCullough PA**, Ronco C. Cardiorenal Syndrome Type 4: Insights on Clinical Presentation and Pathophysiology from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:158-73. doi: 10.1159/000349972. Epub 2013 May 13. PubMed PMID: 23689661.

- M402) Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C, **McCullough PA**, Kellum JA. Cardiorenal Syndrome Type 5: Clinical Presentation, Pathophysiology and Management Strategies from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:174-94. doi: 10.1159/000349970. Epub 2013 May 13. PubMed PMID: 23689662.
- M403) **McCullough PA**, Barnhart HX, Inrig JK, Reddan D, Sapp S, Patel UD, Singh AK, Szczech LA, Califf RM. Cardiovascular Toxicity of Epoetin-Alfa in Patients with Chronic Kidney Disease. *Am J Nephrol.* 2013 May 25;37(6):549-558. PubMed PMID: 23735819.
- M404) Memon I, Norris KC, Bomback AS, Peralta C, Li S, Chen SC, **McCullough PA**, Whaley-Connell A, Jurkovitz C, Tamura MK, Saab G; for the Kidney Early Evaluation Program Investigators. The Association between Parathyroid Hormone Levels and Hemoglobin in Diabetic and Nondiabetic Participants in the National Kidney Foundation's Kidney Early Evaluation Program. *Cardiorenal Med.* 2013 Jul;3(2):120-127. Epub 2013 Jun 1. PubMed PMID: 23922552; PubMed Central PMCID: PMC3721130.
- M405) **McCullough PA**, Barnard D, Clare R, Ellis SJ, Fleg JL, Fonarow GC, Franklin BA, Kilpatrick RD, Kitzman DW, O'Connor CM, Piña IL, Thadani U, Thohan V, Whellan DJ; for the HF-ACTION Investigators. Anemia and Associated Clinical Outcomes in Patients With Heart Failure Due to Reduced Left Ventricular Systolic Function. *Clin Cardiol.* 2013 Oct;36(10):611-20. PubMed PMID: 23929781.
- M406) Akrawinthewong K, Shaw MK, Kachner J, Apostolov EO, Basnakian AG, Shah S, Tilak J, **McCullough PA**. Urine catalytic iron and neutrophil gelatinase-associated lipocalin as companion early markers of acute kidney injury after cardiac surgery: a prospective pilot study. *Cardiorenal Med.* 2013 Apr;3(1):7-16. doi: 10.1159/000346815. Epub 2013 Feb 6. PubMed PMID: 23946721; PubMed Central PMCID: PMC3743453.
- M407) White WB, Cannon CP, Heller SR, Nissen SE, Bergenstal RM, Bakris GL, Perez AT, Fleck PR, Mehta CR, Kupfer S, Wilson C, Cushman WC, Zannad F; EXAMINE Investigators. (**McCullough PA**, Data Safety Monitoring Board) Alogliptin after acute coronary syndrome in patients with type 2 diabetes. *N Engl J Med.* 2013 Oct 3;369(14):1327-35.
- M408) **McCullough PA**, Akrawinthewong K. Ascorbic Acid for the Prevention of Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol.* 2013 Dec 10;62(23):2176-7. PubMed PMID: 23994411.
- M409) Ronco C, **McCullough PA**, Chawla LS. Kidney attack versus heart attack: evolution of classification and diagnostic criteria. *Lancet.* 2013 Sep 14;382(9896):939-40. doi: 10.1016/S0140-6736(13)61932-7. PubMed PMID: 24034297.
- M410) Kurella Tamura M, Li S, Chen SC, Cavanaugh KL, Whaley-Connell AT, **McCullough PA**, Mehrotra RL. Educational programs improve the preparation for dialysis and survival of patients with chronic kidney disease. *Kidney Int.* 2013 Sep 25. doi:10.1038/ki.2013.369. [Epub ahead of print] PubMed PMID: 24067435.



- M411) Nasser M, Larsen TR, Waanbah B, Sidiqi I, **McCullough PA**. Hyperacute drug-induced hepatitis with intravenous amiodarone: case report and review of the literature. *Drug Health Patient Saf*. 2013 Sep 26;5:191-198. PubMed PMID: 24109195.
- M412) Larsen TR, Kinni V, Zaks J, David S, **McCullough PA**. A Lethal Case of Influenza and Type 5 Cardiorenal Syndrome. *Blood Purif*. 2013 Nov 1;36(2):112-115. PubMed PMID: 24192807.
- M413) Fried LF, Emanuele N, Zhang JH, Brophy M, Conner TA, Duckworth W, Leehey DJ, **McCullough PA**, O'Connor T, Palevsky PM, Reilly RF, Seliger SL, Warren SR, Watnick S, Peduzzi P, Guarino P; VA NEPHRON-D Investigators. Combined Angiotensin inhibition for the treatment of diabetic nephropathy. *N Engl J Med*. 2013 Nov 14;369(20):1892-903.
- M414) Parsa A, Kao WH, Xie D, Astor BC, Li M, Hsu CY, Feldman HI, Parekh RS, Kusek JW, Greene TH, Fink JC, Anderson AH, Choi MJ, Wright JT Jr, Lash JP, Freedman BI, Ojo A, Winkler CA, Raj DS, Kopp JB, He J, Jensvold NG, Tao K, Lipkowitz MS, Appel LJ; AASK Study Investigators; CRIC Study Investigators (**McCullough PA**, External Advisory Panel). APOL1 risk variants, race, and progression of chronic kidney disease. *N Engl J Med*. 2013 Dec 5;369(23):2183-96.
- M415) Costanzo MR, Chawla LS, Tumlin JA, Herzog CA, **McCullough PA**, Kellum JA, Ronco C. The role of early and sufficient isolated venovenous ultrafiltration in heart failure patients with pulmonary and systemic congestion. *Rev Cardiovasc Med*. 2013;14(2-4):e123-33. PubMed PMID: 24448253.
- M416) Maioli M, Toso A, Leoncini M, Musilli N, Bellandi F, Rosner MH, **McCullough PA**, Ronco C. Pre-procedural Bioimpedance Vectorial Analysis of fluid status and prediction of Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol*. 2014 Jan 30. pii: S0735-1097(14)00339-8. doi: 10.1016/j.jacc.2014.01.025. [Epub ahead of print] PubMed PMID: 24530668.
- M417) Chawla LS, Herzog CA, Costanzo MR, Tumlin J, Kellum JA, **McCullough PA**, Ronco C; Acute Dialysis Quality Initiative (ADQI) XI Workgroup. Viewpoint: Proposal for a Functional Classification System of Heart Failure in Patients with End-Stage Renal Disease: Proceedings of the Acute Dialysis Quality Initiative (ADQI) XI Workgroup. *J Am Coll Cardiol*. 2014 Jan 30. pii: S0735-1097(14)00331-3. doi: 10.1016/j.jacc.2014.01.020. [Epub ahead of print] Review. PubMed PMID: 24530671.
- M418) **McCullough PA**. Calling for Targeted Trials in Cardiorenal Syndromes. *Am J Kidney Dis*. 2014 Apr 5. pii: S0272-6386(14)00616-7. doi:10.1053/j.ajkd.2014.03.006. [Epub ahead of print] PubMed PMID: 24713221.
- M419) Toth PP, Shah PK, Wilkinson MJ, Davidson MH, **McCullough PA**. Use of microsomal triglyceride transfer protein inhibitors in patients with homozygous familial hypercholesterolemia: translating clinical trial experience into clinical practice. *Rev Cardiovasc Med*. 2014;15(1):1-10. PubMed PMID: 24762461.

- M420) **McCullough PA**, Beaver TM, Bennett-Guerrero E, Emmett M, Fonarow GC, Goyal A, Herzog CA, Kosiborod M, Palmer BF. Acute and chronic cardiovascular effects of hyperkalemia: new insights into prevention and clinical management. *Rev Cardiovasc Med*. 2014;15(1):11-23. PubMed PMID: 24762462.
- M421) **McCullough PA**. Practical experience using galectin-3 in heart failure. *Clin Chem Lab Med*. 2014 May 8. pii:/j/cclm.ahead-of-print/cclm-2014-0278/cclm-2014-0278.xml. doi: 10.1515/cclm-2014-0278. [Epub ahead of print] PubMed PMID: 24810562
- M422) Chin MP, Reisman SA, Bakris GL, O'Grady M, Linde PG, **McCullough PA**, Packham D, Vaziri ND, Ward KW, Warnock DG, Meyer CJ. Mechanisms Contributing to Adverse Cardiovascular Events in Patients with Type 2 Diabetes Mellitus and Stage 4 Chronic Kidney Disease Treated with Bardoxolone Methyl. *Am J Nephrol*. 2014 Jun 3;39(6):499-508. [Epub ahead of print] PubMed PMID: 24903467.
- M423) **McCullough PA**, Whaley-Connell AT, Vassalotti JA. The future of CKD detection: the role for the Kidney Early Evaluation Program. *Nephrol News Issues*. 2014 Apr;28(4):41-2. PubMed PMID: 24960988.
- M424) Palazzuoli A, Pellegrini M, Ruocco G, Martini G, Franci B, Campagna MS, Gillemann M, Nuti R, **McCullough PA**, Ronco C. Continuous versus bolus intermittent loop diuretic infusion in acutely decompensated heart failure: a prospective randomized trial. *Crit Care*. 2014 Jun 28;18(3):R134. doi: 10.1186/cc13952. PubMed PMID: 24974232.
- M425) Manatsathit W, Al-Hamid H, Leelasinjaroen P, Hashmi U, **McCullough PA**. Management of gastrointestinal bleeding in patients anticoagulated with dabigatran compared with warfarin: a retrospective, comparative case review. *Cardiovasc Diagn Ther*. 2014 Jun;4(3):224-31. doi: 10.3978/j.issn.2223-3652.2014.03.07. PubMed PMID: 25009791; PubMed Central PMCID: PMC4069982.
- M426) Neath SX, Jefferies JL, Berger JS, Wu AH, McConnell JP, Boone JL, **McCullough PA**, Jesse RL, Maisel AS. The current and future landscape of urinary thromboxane testing to evaluate atherothrombotic risk. *Rev Cardiovasc Med*. 2014;15(2):119-30. Review. PubMed PMID: 25051129.
- M427) Brown JR, Solomon RJ, Sarnak MJ, **McCullough PA**, Splaine ME, Davies L, Ross CS, Dauerman HL, Stender JL, Conley SM, Robb JF, Chaisson K, Boss R, Lambert P, Goldberg DJ, Lucier D, Fedele FA, Kellett MA, Horton S, Phillips WJ, Downs C, Wiseman A, MacKenzie TA, Malenka DJ; for the Northern New England Cardiovascular Disease Study Group. Reducing Contrast-Induced Acute Kidney Injury Using a Regional Multicenter Quality Improvement Intervention. *Circ Cardiovasc Qual Outcomes*. 2014 Jul 29. pii: CIRCOUTCOMES.114.000903. [Epub ahead of print] PubMed PMID: 25074372.

- M428) Zimering MB, Zhang JH, Guarino PD, Emanuele N, **McCullough PA**, Fried LF; Investigators for the VA NEPHRON-D. Endothelial cell autoantibodies in predicting declining renal function, end-stage renal disease, or death in adult type 2 diabetic nephropathy. *Front Endocrinol (Lausanne)*. 2014 Aug 11;5:128. doi: 10.3389/fendo.2014.00128. eCollection 2014. PubMed PMID: 25157242; PubMed Central PMCID: PMC4127944.
- M429) **McCullough PA**, Kellum JA, Haase M, Müller C, Damman K, Murray PT, Cruz D, House AA, Schmidt-Ott KM, Vescovo G, Bagshaw SM, Hoste EA, Briguori C, Braam B, Chawla LS, Costanzo MR, Tumlin JA, Herzog CA, Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C. Pathophysiology of the Cardiorenal Syndromes: Executive Summary from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Blood Purif*. 2014;37 Suppl 2:2-13. doi: 10.1159/000361059. Epub 2014 Jul 31. PubMed PMID: 25196564.
- M430) Hoste EA, **McCullough PA**, Kashani K, Chawla LS, Joannidis M, Shaw AD, Feldkamp T, Uettwiller-Geiger DL, McCarthy P, Shi J, Walker MG, Kellum JA; for the Sapphire Investigators. Derivation and validation of cutoffs for clinical use of cell cycle arrest biomarkers. *Nephrol Dial Transplant*. 2014 Sep 18. pii: gfu292. [Epub ahead of print] PubMed PMID: 25237065.
- M431) Chin MP, Wrolstad D, Bakris GL, Chertow GM, de Zeeuw D, Goldsberry A, Linde PG, **McCullough PA**, McMurray JJ, Wittes J, Meyer CJ. Risk factors for heart failure in patients with type 2 diabetes mellitus and stage 4 chronic kidney disease treated with bardoxolone methyl. *J Card Fail*. 2014 Dec;20(12):953-8. doi:10.1016/j.cardfail.2014.10.001. Epub 2014 Oct 13. PubMed PMID: 25307295.
- M432) **McCullough PA**, Fazel P, Choi JW. Screening, diagnosis, and management of CAD in asymptomatic diabetic patients. *JACC Cardiovasc Imaging*. 2014 Oct;7(10):1011-2. doi: 10.1016/j.jcmg.2014.08.001. PubMed PMID: 25323163.
- M433) Hundae A, **McCullough PA**. Cardiac and renal fibrosis in chronic cardiorenal syndromes. *Nephron Clin Pract*. 2014;127(1-4):106-12. doi: 10.1159/000363705. Epub 2014 Sep 24. PubMed PMID: 25343831.
- M434) Shin HJ, **McCullough PA**. Focus on lipids: high-density lipoprotein cholesterol and its associated lipoproteins in cardiac and renal disease. *Nephron Clin Pract*. 2014;127(1-4):158-64. doi: 10.1159/000363552. Epub 2014 Sep 24. PubMed PMID:25343842.
- M435) Ball T, **McCullough PA**. Statins for the prevention of contrast-induced acute kidney injury. *Nephron Clin Pract*. 2014;127(1-4):165-71. doi: 10.1159/000363202. Epub 2014 Sep 24. PubMed PMID: 25343843.
- M436) Szczech LA, Stewart RC, Su HL, DeLoskey RJ, Astor BC, Fox CH, **McCullough PA**, Vassalotti JA. Primary Care Detection of Chronic Kidney Disease in Adults with Type-2 Diabetes: The ADD-CKD Study (Awareness, Detection and Drug Therapy in Type 2 Diabetes and Chronic Kidney Disease).

PLoS One. 2014 Nov 26;9(11):e110535. doi: 10.1371/journal.pone.0110535. eCollection 2014. PubMed PMID: 25427285; PubMed Central PMCID: PMC4245114.

- M437) **McCullough PA**, Roberts WC. Peter Andrew McCullough, MD, MPH: An Interview With the Editor. *Am J Cardiol*. 2014 Dec 1;114(11):1772-85. doi: 10.1016/j.amjcard.2014.08.034. Epub 2014 Sep 16. PubMed PMID: 25439453.
- M438) Roberts JK, **McCullough PA**. The Management of Acute Coronary Syndromes in Patients With Chronic Kidney Disease. *Adv Chronic Kidney Dis*. 2014 Nov;21(6):472-479. doi: 10.1053/j.ackd.2014.08.005. Epub 2014 Oct 24. Review. PubMed PMID: 25443572.
- M439) **McCullough PA**, Jefferies JL. Novel Markers and Therapies for Patients with Acute Heart Failure and Renal Dysfunction. *Am J Med*. 2014 Nov 13. pii: S0002-9343(14)00977-2. doi: 10.1016/j.amjmed.2014.10.035. [Epub ahead of print] PubMed PMID: 25446297.
- M440) Ball T, Wheelan K, **McCullough PA**. Chronic anticoagulation in chronic kidney disease. *J Am Coll Cardiol*. 2014 Dec 16;64(23):2483-5. doi: 10.1016/j.jacc.2014.09.052. PubMed PMID: 25500232.
- M441) Akrawinthawong K, Ricci J, Cannon L, Dixon S, Kupfer K, Stivers D, Alexander P, David S, **McCullough PA**. Subclinical and clinical contrast-induced acute kidney injury: data from a novel blood marker for determining the risk of developing contrast-induced nephropathy (ENCINO), a prospective study. *Ren Fail*. 2014 Dec 18:1-5. [Epub ahead of print] PubMed PMID: 25519207.
- M442) **McCullough PA**, Mehta A, Szerlip H. Improving detection of cardiac surgery-associated acute kidney injury. *J Am Coll Cardiol*. 2014 Dec 30;64(25):2763-4. doi: 10.1016/j.jacc.2014.09.065. PubMed PMID: 25541129.
- M443) Lepor NE, Fouchia DD, **McCullough PA**. New vistas for the treatment of obesity: turning the tide against the leading cause of morbidity and cardiovascular mortality in the developed world. *Rev Cardiovasc Med*. 2014;15 Suppl 2:S1-19; quiz S20-1. Review. PubMed PMID: 25662755.
- M444) Watson KE, Stocker EH, Jacoby DS, **McCullough PA**. Advanced lipid testing: when, why, and in whom? *Rev Cardiovasc Med*. 2014;15(4):310-7; quiz 318-9. Review. PubMed PMID: 25662925.
- M445) Charytan DM, Fishbane S, Malyszko J, **McCullough PA**, Goldsmith D. Cardiorenal Syndrome and the Role of the Bone-Mineral Axis and Anemia. *Am J Kidney Dis*. 2015 Feb 26. pii: S0272-6386(15)00084-0. doi: 10.1053/j.ajkd.2014.12.016. [Epub ahead of print] PubMed PMID: 25727384.
- M446) Kassis HM, Minsinger KD, **McCullough PA**, Block CA, Sidhu MS, Brown JR. A Review of the Use of Iloprost, A Synthetic Prostacyclin, in the Prevention of Radiocontrast Nephropathy in

Patients Undergoing Coronary Angiography and Intervention. Clin Cardiol. 2015 May 12. doi: 10.1002/clc.22407. [Epub ahead of print] PubMed PMID: 25963191.

- M447) Palazzuoli A, **McCullough PA**, Ronco C, Nuti R. Kidney disease in heart failure: the importance of novel biomarkers for type 1 cardio-renal syndrome detection. Intern Emerg Med. 2015 May 14. [Epub ahead of print] PubMed PMID: 25972236.
- M448) Robinson JG, Farnier M, Krempf M, Bergeron J, Luc G, Aversa M, Stroes ES, Langslet G, Raal FJ, El Shahawy M, Koren MJ, Lepor NE, Lorenzato C, Pordy R, Chaudhari U, Kastelein JJ; ODYSSEY LONG TERM Investigators (**McCullough PA** Site PI). Efficacy and safety of alirocumab in reducing lipids and cardiovascular events. N Engl J Med. 2015 Apr 16;372(16):1489-99. doi: 10.1056/NEJMoa1501031. Epub 2015 Mar 15. PubMed PMID: 25773378.
- M449) **McCullough PA**, Costanzo MR, Silver M, Spinowitz B, Zhang J, Lepor NE. Novel Agents for the Prevention and Management of Hyperkalemia. Rev Cardiovasc Med. 2015;16(2):140-55. PubMed PMID: 26198561.
- M450) **McCullough PA**, Patanker G, Stoler RC. Estimating Renal Filtration, Drug Dosing, and Clinical Outcomes. J Am Coll Cardiol. 2015 Jun 30;65(25):2724-5. doi: 10.1016/j.jacc.2015.05.015. PubMed PMID: 26112196.
- M451) Husain-Syed F, **McCullough PA**, Birk HW, Renker M, Brocca A, Seeger W, Ronco C. Cardio-Pulmonary-Renal Interactions: A Multidisciplinary Approach. J Am Coll Cardiol. 2015 Jun 9;65(22):2433-48. doi: 10.1016/j.jacc.2015.04.024. Review. PubMed PMID: 26046738.
- M452) Anker SD, Kosiborod M, Zannad F, Piña IL, **McCullough PA**, Filippatos G, van der Meer P, Ponikowski P, Rasmussen HS, Lavin PT, Singh B, Yang A, Deedwania P. Maintenance of serum potassium with sodium zirconium cyclosilicate (ZS-9) in heart failure patients: results from a phase 3 randomized, double-blind, placebo-controlled trial. Eur J Heart Fail. 2015 May 23. doi: 10.1002/ejhf.300. [Epub ahead of print] PubMed PMID: 26011677.
- M453) Palazzuoli A, Ruocco G, Ronco C, **McCullough PA**. Loop diuretics in acute heart failure: beyond the decongestive relief for the kidney. Crit Care. 2015 Sep 3;19:296. doi: 10.1186/s13054-015-1017-3. PubMed PMID: 26335137; PubMed Central PMCID: PMC4559070.
- M454) **McCullough PA**, Young A, Shutze WP. Acute Kidney Injury After Carotid Artery Stenting. JACC Cardiovasc Interv. 2015 Sep;8(11):1515-7. doi: 10.1016/j.jcin.2015.07.006. PubMed PMID: 26404205.
- M455) Fallahzadeh MK, **McCullough PA**. Cardiac Electromechanical Abnormalities in Hemodialysis Patients: Indicators of Cardiomyopathy and Future Risk. Am J Nephrol. 2015;42(3):237-8. doi: 10.1159/000441100. Epub 2015 Oct 20. PubMed PMID: 26484657.

- M456) Thompson-Martin Y, **McCullough PA**, Agrawal V. Impact of an Educational Program for Advanced Practice Nurses on Knowledge of Kidney Disease Outcomes Quality Initiative Guidelines. *Nephrol Nurs J*. 2015 Sep-Oct;42(5):455-60, 496; quiz 461. PubMed PMID: 26591270.
- M457) Larsen TR, Singh G, Velocci V, Nasser M, **McCullough PA**. Frequency of fluid overload and usefulness of bioimpedance in patients requiring intensive care for sepsis syndromes. *Proc (Bayl Univ Med Cent)*. 2016 Jan;29(1):12-5. PubMed PMID: 26722156; PubMed Central PMCID: PMC4677841.
- M458) Charytan DM, Foley R, **McCullough PA**, Rogers JD, Zimetbaum P, Herzog CA, Tumlin JA; MiD Investigators and Committees. Arrhythmia and Sudden Death in Hemodialysis Patients: Protocol and Baseline Characteristics of the Monitoring in Dialysis Study. *Clin J Am Soc Nephrol*. 2016 Jan 13. pii: CJN.09350915. [Epub ahead of print] PubMed PMID: 26763255.
- M459) Roberts WC, Hall SA, Ko JM, **McCullough PA**, Lima B. Atrophy of the Heart After Insertion of a Left Ventricular Assist Device and Closure of the Aortic Valve. *Am J Cardiol*. 2016 Mar 1;117(5):878-9. doi: 10.1016/j.amjcard.2015.12.008. Epub 2015 Dec 13. PubMed PMID: 26792135.
- M460) Tecson KM, Silver MA, Brune SD, Cauthen C, Kwan MD, Schussler JM, Vasudevan A, Watts JA, **McCullough PA**. Impact of Enhanced External Counterpulsation on Heart Failure Rehospitalization in Patients With Ischemic Cardiomyopathy. *Am J Cardiol*. 2015 Dec 31. pii: S0002-9149(15)30069-2. doi: 10.1016/j.amjcard.2015.12.024. [Epub ahead of print] PubMed PMID: 26813739.
- M461) **McCullough PA**, Roberts WC. Influence of Chronic Renal Failure on Cardiac Structure. *J Am Coll Cardiol*. 2016 Mar 15;67(10):1183-5. doi:10.1016/j.jacc.2015.11.065. PubMed PMID: 26965539.
- M462) Palazzuoli A, Ruocco G, Pellegrini M, Beltrami M, Giordano N, Nuti R, **McCullough PA**. Prognostic Significance of Hyperuricemia in Patients With Acute Heart Failure. *Am J Cardiol*. 2016 May 15;117(10):1616-21. doi: 10.1016/j.amjcard.2016.02.039. Epub 2016 Mar 2. PubMed PMID: 27040576.
- M463) **McCullough PA**, Fallahzadeh MK, Tecson KM. Predicting Acute Kidney Injury in the Catheterization Laboratory. *J Am Coll Cardiol*. 2016 Apr 12;67(14):1723-4. doi: 10.1016/j.jacc.2016.02.007. PubMed PMID: 27056779.
- M464) Grodzinsky A, Goyal A, Gosch K, **McCullough PA**, Fonarow GC, Mebazaa A, Masoudi FA, Spertus JA, Palmer BF, Kosiborod M. Prevalence and Prognosis of Hyperkalemia in Patients with Acute Myocardial Infarction. *Am J Med*. 2016 Apr 7. pii:S0002-9343(16)30317-5. doi: 10.1016/j.amjmed.2016.03.008. [Epub ahead of print] PubMed PMID: 27060233.

- M465) Sherwood M, **McCullough PA**. Chronic kidney disease from screening, detection, and awareness, to prevention. *Lancet Glob Health*. 2016 May;4(5):e288-9. doi: 10.1016/S2214-109X(16)30049-3. PubMed PMID: 27102186.
- M466) **McCullough PA**, Afzal A, Kale P. Goal-Directed Heart Failure Care in Patients With Chronic Kidney Disease and End-Stage Renal Disease. *JACC Heart Fail*. 2016 May 30. pii: S2213-1779(16)30084-1. doi: 10.1016/j.jchf.2016.03.014. [Epub ahead of print] PubMed PMID: 27289405.
- M467) Prasad A, Sohn A, Morales J, Williams K, Bailey SR, Levin D, **McCullough PA**, Mehran R, Lopez-Cruz G, Harder J. Contemporary practice patterns related to the risk of acute kidney injury in the catheterization laboratory: Results from a survey of Society of Cardiovascular Angiography and Intervention (SCAI) cardiologists. *Catheter Cardiovasc Interv*. 2016 Jun 17. doi: 10.1002/ccd.26628. [Epub ahead of print] PubMed PMID: 27315581.
- M468) Schussler JM, Vasudevan A, von Bose LJ, Won JI, **McCullough PA**. Comparative Efficacy of Transradial Versus Transfemoral Approach for Coronary Angiography and Percutaneous Coronary Intervention. *Am J Cardiol*. 2016 Aug 15;118(4):482-8. doi: 10.1016/j.amjcard.2016.05.038. PubMed PMID: 27378143.
- M469) Zannad F, Stough WG, Lipicky RJ, Tamargo J, Bakris GL, Borer JS, Alonso García Mde L, Hadjadj S, Koenig W, Kupfer S, **McCullough PA**, Mosenzon O, Pocock S, Scheen AJ, Sourij H, Van der Schueren B, Stahre C, White WB, Calvo G. Assessment of cardiovascular risk of new drugs for the treatment of diabetes mellitus: risk assessment vs. risk aversion. *Eur Heart J Cardiovasc Pharmacother*. 2016 Jul;2(3):200-5. doi: 10.1093/ehjcvp/pvw007. Review. PubMed PMID: 27418973; PubMed Central PMCID: PMC4907355.
- M470) **McCullough PA**, Bennett-Guerrero E, Chawla LS, Beaver T, Mehta RL, Molitoris BA, Eldred A, Ball G, Lee HJ, Houser MT, Khan S. ABT-719 for the Prevention of Acute Kidney Injury in Patients Undergoing High-Risk Cardiac Surgery: A Randomized Phase 2b Clinical Trial. *J Am Heart Assoc*. 2016 Aug 20;5(8). pii:e003549. doi: 10.1161/JAHA.116.003549. PubMed PMID: 27543797; PubMed Central PMCID: PMC5015281.
- M471) Brown JR, **McCullough PA**, Matheny ME. Novel Developments in Acute Kidney Injury. *Biomed Res Int*. 2016;2016:2756204. doi: 10.1155/2016/2756204. PubMed PMID: 27595099; PubMed Central PMCID: PMC4995325.
- M472) **McCullough PA**, Choi JP, Feghali GA, Schussler JM, Stoler RM, Vallabahn RC, Mehta A. Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol*. 2016 Sep 27;68(13):1465-73. doi: 10.1016/j.jacc.2016.05.099. Review. PubMed PMID:27659469.
- M473) Villa G, Neri M, Bellomo R, Cerda J, De Gaudio AR, De Rosa S, Garzotto F, Honore PM, Kellum J, Lorenzin A, Payen D, Ricci Z, Samoni S, Vincent JL, Wendon J, Zaccaria M, Ronco C; Nomenclature Standardization Initiative (NSI) Alliance (**McCullough PA** member). Nomenclature

for renal replacement therapy and blood purification techniques in critically ill patients: practical applications. *Crit Care*. 2016 Oct 10;20(1):283. Review. PubMed PMID: 27719676; PubMed Central PMCID: PMC5056485.

- M474) **McCullough PA**, Fallahzadeh MK, Hegazi RM. Nutritional Deficiencies and Sarcopenia in Heart Failure: A Therapeutic Opportunity to Reduce Hospitalization and Death. *Rev Cardiovasc Med*. 2016;17(S1):S30-S39. PubMed PMID: 27725625.
- M475) Bakris GL, Burkart JM, Weinhandl ED, **McCullough PA**, Kraus MA. Intensive Hemodialysis, Blood Pressure, and Antihypertensive Medication Use. *Am J Kidney Dis*. 2016 Nov;68(5S1):S15-S23. doi: 10.1053/j.ajkd.2016.05.026. PubMed PMID:27772639.
- M476) Copland M, Komenda P, Weinhandl ED, **McCullough PA**, Morfin JA. Intensive Hemodialysis, Mineral and Bone Disorder, and Phosphate Binder Use. *Am J Kidney Dis*. 2016 Nov;68(5S1):S24-S32. doi: 10.1053/j.ajkd.2016.05.024. PubMed PMID:27772640.
- M477) Morfin JA, Fluck RJ, Weinhandl ED, Kansal S, **McCullough PA**, Komenda P. Intensive Hemodialysis and Treatment Complications and Tolerability. *Am J Kidney Dis*. 2016 Nov;68(5S1):S43-S50. doi: 10.1053/j.ajkd.2016.05.021. PubMed PMID:27772642.
- M478) **McCullough PA**, Chan CT, Weinhandl ED, Burkart JM, Bakris GL. Intensive Hemodialysis, Left Ventricular Hypertrophy, and Cardiovascular Disease. *Am J Kidney Dis*. 2016 Nov;68(5S1):S5-S14. doi: 10.1053/j.ajkd.2016.05.025. PubMed PMID: 27772643.
- M479) **McCullough PA**, Ball T, Cox KM, Assar MD. Use of Oral Anticoagulation in the Management of Atrial Fibrillation in Patients with ESRD: Pro. *Clin J Am Soc Nephrol*. 2016 Nov 7;11(11):2079-2084. PubMed PMID: 27797888; PubMed Central PMCID: PMC5108189.
- M480) Zhang J, **McCullough PA**. Lipoic Acid in the Prevention of Acute Kidney Injury. *Nephron*. 2016;134(3):133-140. PubMed PMID: 27603173.
- M481) **McCullough PA**, Vasudevan A, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, Bottiglieri T. Oxidative stress reflected by increased F(2)-isoprostanes is associated with increasing urinary 11-dehydro thromboxane B(2) levels in patients with coronary artery disease. *Thromb Res*. 2016 Oct 26;148:85-88. doi: 10.1016/j.thromres.2016.10.022. [Epub ahead of print] PubMed PMID: 27815971.
- M482) Zhang J, Fallahzadeh MK, **McCullough PA**. Aging Male Spontaneously Hypertensive Rat as an Animal Model for the Evaluation of the Interplay between Contrast-Induced Acute Kidney Injury and Cardiorenal Syndrome in Humans. *Cardiorenal Med*. 2016 Nov;7(1):1-10. Epub 2016 Jul 21. Review. PubMed PMID:27994597; PubMed Central PMCID: PMC5159736.
- M483) Vasudevan A, Bottiglieri T, Tecson KM, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, **McCullough PA**. Residual thromboxane



activity and oxidative stress: influence on mortality in patients with stable coronary artery disease. *Coron Artery Dis.* 2017 Jun;28(4):287-293. doi: 10.1097/MCA.0000000000000461. PubMed PMID: 28005558.

M484) Krishnan DK, Pawlaczyk B, **McCullough PA**, Enright S, Kunadi A, Vanhecke TE. Point-of-Care, Ultraportable Echocardiography Predicts Diuretic Response in Patients Admitted with Acute Decompensated Heart Failure. *Clin Med Insights Cardiol.* 2016 Dec 19;10:201-208. doi: 10.4137/CMC.S38896. eCollection 2016. PubMed PMID: 28008296; PubMed Central PMCID: PMC5170880.

M485) Singer AJ, Than MP, Smith S, **McCullough P**, Barrett TW, Birkhahn R, Reed M, Thode HC, Arnold WD, Daniels LB, de Filippi C, Headden G, Peacock WF. Missed myocardial infarctions in ED patients prospectively categorized as low risk by established risk scores. *Am J Emerg Med.* 2017 Jan 5. pii: S0735-6757(17)30003-7. doi: 10.1016/j.ajem.2017.01.003. [Epub ahead of print] PubMed PMID: 28108220.

M486) Tecson KM, Arnold W, Barrett T, Birkhahn R, Daniels LB, DeFilippi C, Headden G, Peacock WF, Reed M, Singer AJ, Schussler JM, Smith S, Than MP, **McCullough PA**. Interpretation of positive troponin results among patients with and without myocardial infarction. *Proc (Bayl Univ Med Cent).* 2017 Jan;30(1):11-15. PubMed PMID: 28127121; PubMed Central PMCID: PMC5242102.

M487) Tecson KM, Panettiere-Kennedy KS, Won JI, Garg P, Olugbode O, **McCullough PA**. Relation between proprotein convertase subtilisin/kexin type 9 and directly measured low-density lipoprotein cholesterol. *Proc (Bayl Univ Med Cent).* 2017 Jan;30(1):16-20. PubMed PMID: 28127122; PubMed Central PMCID: PMC5242103.

M488) **McCullough PA**, Vasudevan A, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, Bottiglieri T. Urinary 11-Dehydro-Thromboxane B(2) and Mortality in Patients With Stable Coronary Artery Disease. *Am J Cardiol.* 2017 Apr 1;119(7):972-977. doi: 10.1016/j.amjcard.2016.12.004. Epub 2017 Jan 5. PubMed PMID: 28139223

M489) Vasudevan A, Singer AJ, DeFilippi C, Headden G, Schussler JM, Daniels LB, Reed M, Than MP, Birkhahn R, Smith SW, Barrett TW, Arnold W, Peacock WF, **McCullough PA**. Renal Function and Scaled Troponin in Patients Presenting to the Emergency Department with Symptoms of Myocardial Infarction. *Am J Nephrol.* 2017;45(4):304-309. doi: 10.1159/000458451. Epub 2017 Feb 14. PubMed PMID:28192777.

M490) **McCullough PA**, Zhang J, Ronco C. Volume expansion and contrast-induced acute kidney injury. *Lancet.* 2017 Apr 1;389(10076):1277-1278. doi:10.1016/S0140-6736(17)30540-8. Epub 2017 Feb 21. PubMed PMID: 28236468.

- M491) Elbehary S, Szerlip HM, **McCullough PA**. Potassium Excretion and Outcomes in CKD: Is K Intake OK? *Am J Kidney Dis*. 2017 Mar;69(3):325-327. doi:10.1053/j.ajkd.2016.11.009. PubMed PMID: 28236878.
- M492) **McCullough PA**, Rios A, Smith B. Dialysis fistulas and heart failure. *Eur Heart J*. 2017 Mar 17. doi: 10.1093/eurheartj/ehx114. [Epub ahead of print] PubMed PMID:28329218.
- M493) Howard CE, **McCullough PA**. Decoding Acute Myocardial Infarction among Patients on Dialysis. *J Am Soc Nephrol*. 2017 May;28(5):1337-1339. doi:10.1681/ASN.2017030226. Epub 2017 Apr 12. PubMed PMID: 28404663.
- M494) Vasudevan A, Jazi HH, Won JI, Ball T, Patankar GR, Sarmast SA, Shin HJ, **McCullough PA**. Personalized treatment of heart failure with biomarker guidance using a novel disease severity score. *Proc (Bayl Univ Med Cent)*. 2017 Apr;30(2):139-142. PubMed PMID: 28405060; PubMed Central PMCID: PMC5349806.
- M495) Won JI, Zhang J, Tecson KM, **McCullough PA**. Balancing Low-density Lipoprotein Cholesterol Reduction and Hepatotoxicity With Lomitapide Mesylate and Mipomersen in Patients With Homozygous Familial Hypercholesterolemia. *Rev Cardiovasc Med*. 2017;18(1):21-28. PubMed PMID: 28509890.
- M496) Afzal A, Sarmast S, Choi JW, **McCullough PA**, Schussler JM. Spontaneous Coronary Artery Dissection: A Review of Pathogenesis, Presentations, Treatment, and Outcomes. *Rev Cardiovasc Med*. 2017;18(1):29-36. PubMed PMID: 28509891.
- M497) **McCullough PA**. How Trialists and Pharmaceutical Sponsors Have Failed Us by Thinking That Acute Heart Failure Is a 48-Hour Illness. *Am J Cardiol*. 2017 May 11. pii: S0002-9149(17)30795-6. doi: 10.1016/j.amjcard.2017.04.056. [Epub ahead of print] PubMed PMID: 28583677.
- M498) Zhang J, Bottiglieri T, **McCullough PA**. The Central Role of Endothelial Dysfunction in Cardiorenal Syndrome. *Cardiorenal Med*. 2017 Feb;7(2):104-117. doi: 10.1159/000452283. Epub 2016 Dec 29. Review. PubMed PMID: 28611784; PubMed Central PMCID: PMC5465690.
- M499) Tecson KM, Erhardtsen E, Eriksen PM, Gaber AO, Germain M, Golestaneh L, Lavoria MLA, Moore LW, **McCullough PA**. Optimal cut points of plasma and urine neutrophil gelatinase-associated lipocalin for the prediction of acute kidney injury among critically ill adults: retrospective determination and clinical validation of a prospective multicentre study. *BMJ Open*. 2017 Jul 10;7(7):e016028. doi: 10.1136/bmjopen-2017-016028. PubMed PMID: 28698338
- M500) Vasudevan A, Schussler JM, Won JI, Ashcraft P, Bolanos I, Williams M, Bottiglieri T, Velasco CE, **McCullough PA**. Urinary metabolites in patients undergoing coronary catheterization via the radial versus femoral artery approach. *Proc (Bayl Univ Med Cent)*. 2017 Oct;30(4):404-409. PubMed PMID: 28966445; PubMed Central PMCID: PMC5595375.

- M501) Azzalini L, Candilio L, **McCullough PA**, Colombo A. Current Risk of Contrast-Induced Acute Kidney Injury After Coronary Angiography and Intervention: A Reappraisal of the Literature. *Can J Cardiol*. 2017 Oct;33(10):1225-1228. doi: 10.1016/j.cjca.2017.07.482. Epub 2017 Aug 3. Review. PubMed PMID: 28941604.
- M502) Palazzuoli A, Ruocco G, De Vivo O, Nuti R, **McCullough PA**. Prevalence of Hyperuricemia in Patients With Acute Heart Failure With Either Reduced or Preserved Ejection Fraction. *Am J Cardiol*. 2017 Oct 1;120(7):1146-1150. doi: 10.1016/j.amjcard.2017.06.057. Epub 2017 Jul 17. PubMed PMID: 28807403.
- M503) Kovesdy CP, Appel LJ, Grams ME, Gutekunst L, **McCullough PA**, Palmer BF, Pitt B, Sica DA, Townsend RR. Potassium homeostasis in health and disease: A scientific workshop cosponsored by the National Kidney Foundation and the American Society of Hypertension. *J Am Soc Hypertens*. 2017 Oct 10. pii: S1933-1711(17)30337-6. doi: 10.1016/j.jash.2017.09.011. [Epub ahead of print] PubMed PMID: 29030153.
- M504) Afzal A, Vallabhan RC, **McCullough PA**. Acute kidney injury in cardiogenic shock: in search of early detection and clinical certainty. *Eur J Heart Fail*. 2017 Oct 12. doi: 10.1002/ejhf.1032. [Epub ahead of print] PubMed PMID: 29027337.
- M505) Ronco C, Ronco F, **McCullough PA**. A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine. *Blood Purif*. 2017 Oct 25;44(4):251-259. doi: 10.1159/000480318. [Epub ahead of print] PubMed PMID: 29065398.
- M506) Ronco C, Ronco F, **McCullough PA**. A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine. *Rev Cardiovasc Med*. 2017;18(3):93-99. PubMed PMID: 29111542.
- M507) Butler J, Hamo CE, Filippatos G, Pocock SJ, Bernstein RA, Brueckmann M, Cheung AK, George JT, Green JB, Januzzi JL, Kaul S, Lam CSP, Lip GYH, Marx N, **McCullough PA**, Mehta CR, Ponikowski P, Rosenstock J, Sattar N, Salsali A, Scirica BM, Shah SJ, Tsutsui H, Verma S, Wanner C, Woerle HJ, Zannad F, Anker SD; EMPEROR Trials Program. The potential role and rationale for treatment of heart failure with sodium-glucose co-transporter 2 inhibitors. *Eur J Heart Fail*. 2017 Nov;19(11):1390-1400. doi: 10.1002/ejhf.933. Epub 2017 Aug 24. Review. PubMed PMID: 28836359.
- M508) **McCullough PA**, David G, Todoran TM, Brilakis ES, Ryan MP, Gunnarsson C. Iso-osmolar contrast media and adverse renal and cardiac events after percutaneous cardiovascular intervention. *J Comp Eff Res*. 2017 Nov 9. doi: 10.2217/ce-2017-0052. [Epub ahead of print] PubMed PMID: 29117715.
- M509) Rocha NA, East C, Zhang J, **McCullough PA**. ApoCIII as a Cardiovascular Risk Factor and Modulation by the Novel Lipid-Lowering Agent Volanesorsen. *Curr Atheroscler Rep*. 2017 Nov 9;19(12):62. doi: 10.1007/s11883-017-0697-3. Review. PubMed PMID: 29124482.

- M510) Rangaswami J, Mathew RO, **McCullough PA**. Resuscitation for the specialty of nephrology: is cardionephrology the answer? *Kidney Int.* 2017 Nov 11. pii: S0085-2538(17)30727-5. doi: 10.1016/j.kint.2017.10.002. [Epub ahead of print] PubMed PMID: 29137816.
- M511) Kovesdy CP, Appel LJ, Grams ME, Gutekunst L, **McCullough PA**, Palmer BF, Pitt B, Sica DA, Townsend RR. Potassium Homeostasis in Health and Disease: A Scientific Workshop Cosponsored by the National Kidney Foundation and the American Society of Hypertension. *Am J Kidney Dis.* 2017 Dec;70(6):844-858. doi: 10.1053/j.ajkd.2017.09.003. Epub 2017 Oct 10. PubMed PMID: 29029808.
- M512) Ostermann M, **McCullough PA**, Forni LG, Bagshaw SM, Joannidis M, Shi J, Kashani K, Honore PM, Chawla LS, Kellum JA; all SAPPHIRE Investigators. Kinetics of Urinary Cell Cycle Arrest Markers for Acute Kidney Injury Following Exposure to Potential Renal Insults. *Crit Care Med.* 2017 Nov 20. doi:10.1097/CCM.0000000000002847. [Epub ahead of print] PubMed PMID: 29189343
- M513) Vasudevan A, Tecson KM, Bennett-Firmin J, Bottiglieri T, Lopez LR, Peterson M, Sathyamoorthy M, Schiffmann R, Schussler JM, Swift C, Velasco CE, **McCullough PA**. Prognostic value of urinary 11-dehydro-thromboxane B(2) for mortality: A cohort study of stable coronary artery disease patients treated with aspirin. *Catheter Cardiovasc Interv.* 2017 Nov 29. doi: 10.1002/ccd.27437. [Epub ahead of print] PubMed PMID: 29193683.
- M514) Himmelfarb J, Chertow GM, **McCullough PA**, Mesana T, Shaw AD, Sundt TM, Brown C, Cortville D, Dagenais F, de Varennes B, Fontes M, Rossert J, Tardif JC. Perioperative THR-184 and AKI after Cardiac Surgery. *J Am Soc Nephrol.* 2017 Dec 4. pii: ASN.2017020217. doi: 10.1681/ASN.2017020217. [Epub ahead of print] PubMed PMID: 29203473.
- M515) **McCullough PA**, Rangaswami J. Real or Perceived: Hyperkalemia Is a Major Deterrent for Renin-Angiotensin Aldosterone System Inhibition in Heart Failure. *Nephron.* 2017 Dec 5. doi: 10.1159/000485645. [Epub ahead of print] PubMed PMID: 29207385.
- M516) Keuffel E, **McCullough PA**, Todoran TM, Brilakis ES, Palli SR, Ryan MP, Gunnarsson C. The effect of major adverse renal cardiovascular event (MARCE) incidence, procedure volume, and unit cost on the hospital savings resulting from contrast media use in inpatient angioplasty. *J Med Econ.* 2017 Dec 15:1-9. doi: 10.1080/13696998.2017.1415912. [Epub ahead of print] PubMed PMID: 29226736.
- M517) Tecson KM, Brown D, Choi JW, Feghali G, Gonzalez-Stawinski GV, Hamman BL, Hebel R, Lander SR, Lima B, Potluri S, Schussler JM, Stoler RC, Velasco C, **McCullough PA**. Major Adverse Renal and Cardiac Events After Coronary Angiography and Cardiac Surgery. *Ann Thorac Surg.* 2018 Jun;105(6):1724-1730. doi:10.1016/j.athoracsur.2018.01.010. Epub 2018 Feb 2. PubMed PMID: 29408241.

- M518) Haase VH, Chertow GM, Block GA, Pergola PE, deGoma EM, Khawaja Z, Sharma A, Maroni BJ, **McCullough PA**. Effects of vadadustat on hemoglobin concentrations in patients receiving hemodialysis previously treated with erythropoiesis-stimulating agents. *Nephrol Dial Transplant*. 2018 Apr 16. doi: 10.1093/ndt/gfy055. [Epub ahead of print] PubMed PMID: 29672740.
- M519) **McCullough PA**, Ballantyne CM, Sanganalmath SK, Langslet G, Baum SJ, Shah PK, Koren A, Mandel J, Davidson MH. Efficacy and Safety of Alirocumab in High-Risk Patients With Clinical Atherosclerotic Cardiovascular Disease and/or Heterozygous Familial Hypercholesterolemia (from 5 Placebo-Controlled ODYSSEY Trials). *Am J Cardiol*. 2018 Apr 15;121(8):940-948. doi: 10.1016/j.amjcard.2017.12.040. Epub 2018 Feb 2. PubMed PMID: 29472008.
- M520) Zhang J, Tecson KM, Rocha NA, **McCullough PA**. Usefulness of alirocumab and evolocumab for the treatment of patients with diabetic dyslipidemia. *Proc (Bayl Univ Med Cent)*. 2018 Apr 11;31(2):180-184. doi: 10.1080/08998280.2018.1441255. eCollection 2018 Apr. Review. PubMed PMID: 29706812; PubMed Central PMCID: PMC5914471.
- M521) **McCullough PA**. Editorial: Robertsonian Perspectives on Atherosclerosis: The Power of Direct Observation. *Am J Cardiol*. 2018 Apr 3. pii: S0002-9149(18)30255-8. doi: 10.1016/j.amjcard.2018.02.019. [Epub ahead of print] PubMed PMID: 29724407.
- M522) Maisel AS, Daniels LB, Anand IS, **McCullough PA**, Chow SL. Utility of natriuretic peptides to assess and manage patients with heart failure receiving angiotensin receptor blocker/neprilysin inhibitor therapy. *Postgrad Med*. 2018 Apr;130(3):299-307. doi: 10.1080/00325481.2018.1440873. Epub 2018 Mar 29. Review. PubMed PMID: 29596012.
- M523) **McCullough PA**, Kluger AY. Interpreting the Wide Range of NT-proBNP Concentrations in Clinical Decision Making. *J Am Coll Cardiol*. 2018 Mar 20;71(11):1201-1203. doi: 10.1016/j.jacc.2018.01.056. PubMed PMID: 29544602.
- M524) Turakhia MP, Blankestijn PJ, Carrero JJ, Clase CM, Deo R, Herzog CA, Kasner SE, Passman RS, Pecoits-Filho R, Reinecke H, Shroff GR, Zareba W, Cheung M, Wheeler DC, Winkelmayr WC, Wanner C; Conference Participants (**McCullough PA**) . Chronic kidney disease and arrhythmias: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Eur Heart J*. 2018 Mar 7. doi:10.1093/eurheartj/ehy060. [Epub ahead of print] PubMed PMID: 29522134.
- M525) Cherney DZI, Lytvyn Y, **McCullough PA**. Cardiovascular Risk Reduction in Patients With Chronic Kidney Disease: Potential for Targeting Inflammation With Canakinumab. *J Am Coll Cardiol*. 2018 May 29;71(21):2415-2418. doi:10.1016/j.jacc.2018.04.008. PubMed PMID: 29793630.
- M526) Barbin CM, Vasudevan A, Choi JW, **McCullough PA**, Schussler JM, Vallabhan RC, Stoler RC. Frequency of abnormal fractional flow reserve measurements among major coronary arteries.

Cardiovasc Revasc Med. 2018 Apr 25. pii: S1553-8389(18)30145-3. doi: 10.1016/j.carrev.2018.04.015. [Epub ahead of print] PubMed PMID: 29807815.

- M527) Vasudevan A, Hundae A, Borodje D, **McCullough PA**, Wells PJ. Frequency of atrial arrhythmias after atrial flutter ablation and the effect of presenting rhythm on the day of ablation. *Proc (Bayl Univ Med Cent)*. 2018 May 14;31(3):280-283. doi: 10.1080/08998280.2018.1464305. eCollection 2018 Jul. PubMed PMID: 29904288; PubMed Central PMCID: PMC5997080.
- M528) Rengarajan R, **McCullough PA**, Chowdhury A, Tecson KM. Identifying suspected familial chylomicronemia syndrome. *Proc (Bayl Univ Med Cent)*. 2018 May 21;31(3):284-288. doi: 10.1080/08998280.2018.1463784. eCollection 2018 Jul. PubMed PMID: 29904289; PubMed Central PMCID: PMC5997083.
- M529) Maioli M, Toso A, Leoncini M, Musilli N, Grippo G, Ronco C, **McCullough PA**, Bellandi F. Bioimpedance-Guided Hydration for the Prevention of Contrast-Induced Kidney Injury: The HYDRA Study. *J Am Coll Cardiol*. 2018 Jun 26;71(25):2880-2889. doi: 10.1016/j.jacc.2018.04.022. PubMed PMID: 29929610.
- M530) **McCullough PA**, Uhlig K, Neylan JF, Pergola PE, Fishbane S. Usefulness of Oral Ferric Citrate in Patients With Iron-Deficiency Anemia and Chronic Kidney Disease With or Without Heart Failure. *Am J Cardiol*. 2018 Aug 15;122(4):683-688. doi: 10.1016/j.amjcard.2018.04.062. Epub 2018 May 19. PubMed PMID: 29961562.
- M531) de Albuquerque Rocha N, Neeland IJ, **McCullough PA**, Toto RD, McGuire DK. Effects of sodium glucose co-transporter 2 inhibitors on the kidney. *Diab Vasc Dis Res*. 2018 Sep;15(5):375-386. doi: 10.1177/1479164118783756. Epub 2018 Jul 2. Review. PubMed PMID: 29963920.
- M532) Chaudhry RI, Mathew RO, Sidhu MS, Sidhu-Adler P, Lyubarova R, Rangaswami J, Salman L, Asif A, Fleg JL, **McCullough PA**, Maddux F, Bangalore S. Detection of Atherosclerotic Cardiovascular Disease in Patients with Advanced Chronic Kidney Disease in the Cardiology and Nephrology Communities. *Cardiorenal Med*. 2018;8(4):285-295. doi: 10.1159/000490768. Epub 2018 Aug 3. PubMed PMID:30078001.
- M533) Kazory A, **McCullough PA**, Rangaswami J, Ronco C. Cardioneurology: Proposal for a Futuristic Educational Approach to a Contemporary Need. *Cardiorenal Med*. 2018;8(4):296-301. doi: 10.1159/000490744. Epub 2018 Aug 8. Review. PubMed PMID: 30089281.
- M534) Kluger AY, **McCullough PA**. Semaglutide and GLP-1 analogues as weight-loss agents. *Lancet*. 2018 Aug 25;392(10148):615-616. doi: 10.1016/S0140-6736(18)31826-9. Epub 2018 Aug 16. PubMed PMID: 30122306.
- M535) Ambrosy AP, Mulder H, Coles A, Krauss WE, Lam CSP, **McCullough PA**, Pina I, Tromp J, Whellan DJ, O'Connor CM, Mentz RJ. Renal Function and Exercise Training in Ambulatory Heart

Failure Patients With a Reduced Ejection Fraction. *Am J Cardiol*. 2018 Sep 15;122(6):999-1007. doi: 10.1016/j.amjcard.2018.06.011. Epub 2018 Jun 23. PubMed PMID: 30269900.

M536) **McCullough PA**, Todoran TM, Brilakis ES, Ryan MP, Gunnarsson C. Rate of major adverse renal or cardiac events with iohexol compared to other low osmolar contrast media during interventional cardiovascular procedures. *Catheter Cardiovasc Interv*. 2018 Oct 2. doi: 10.1002/ccd.27807. [Epub ahead of print] PubMed PMID: 30280476.

M537) **McCullough PA**, Soman S. Cardiorenal Syndrome: A Call to Action for a Pressing Medical Issue. *Adv Chronic Kidney Dis*. 2018 Sep;25(5):379-381. doi: 10.1053/j.ackd.2018.08.011. PubMed PMID: 30309454.

M538) Rangaswami J, **McCullough PA**. Heart Failure in End-Stage Kidney Disease: Pathophysiology, Diagnosis, and Therapeutic Strategies. *Semin Nephrol*. 2018 Nov;38(6):600-617. doi: 10.1016/j.semnephrol.2018.08.005. Review. PubMed PMID: 30413254.

M539) Goyal A, Chatterjee K, Mathew RO, Sidhu MS, Bangalore S, **McCullough PA**, Rangaswami J. In-Hospital Mortality and Major Adverse Cardiovascular Events after Kidney Transplantation in the United States. *Cardiorenal Med*. 2018 Nov 14;9(1):51-60. doi: 10.1159/000492731. [Epub ahead of print] PubMed PMID: 30428461.

M540) **McCullough PA**. Treatment of Orthostatic Hypotension Due to Autonomic Dysfunction (Neurogenic Orthostatic Hypotension) in a Patient with Cardiovascular Disease and Parkinson's Disease. *Cardiol Ther*. 2019 Jun;8(1):145-150. Doi: 10.1007/s40119-018-0124-z. Epub 2019 Jan 9. PubMed PMID: 30627953.

M541) Vasudevan A, Choi JW, Feghali GA, Lander SR, Jialiang L, Schussler JM, Stoler RC, Vallabhan RC, Velasco CE, **McCullough PA**. Event dependence in the analysis of cardiovascular readmissions postpercutaneous coronary intervention. *J Investig Med*. 2019 Jan 18. pii: jim-2018-000873. doi: 10.1136/jim-2018-000873. [Epub ahead of print] PubMed PMID: 30659091.

M542) Rocha NA, **McCullough PA**. Cardiovascular outcomes in diabetic kidney disease: insights from recent clinical trials. *Kidney Int Suppl* (2011). 2018 Jan;8(1):8-17. doi: 10.1016/j.kisu.2017.10.004. Epub 2017 Dec 29. Review. PubMed PMID: 30675434; PubMed Central PMCID: PMC6336216.

M543) Rangaswami J, Bhalla V, Blair JEA, Chang TI, Costa S, Lentine KL, Lerma EV, Mezue K, Molitch M, Mullens W, Ronco C, Tang WHW, **McCullough PA**; American Heart Association Council on the Kidney in Cardiovascular Disease and Council on Clinical Cardiology. Cardiorenal Syndrome: Classification, Pathophysiology, Diagnosis, and Treatment Strategies: A Scientific Statement From the American Heart Association. *Circulation*. 2019 Apr 16;139(16):e840-e878. doi: 10.1161/CIR.0000000000000664. PubMed PMID: 30852913.

- M544) Ball TN, Vasudevan A, Mi Ko J, Assar MD, **McCullough PA**, Stoler RC. Analysis of electrocardiographic intervals before and after transcatheter aortic valve implantation to predict the need for permanent pacing. *Proc (Bayl Univ Med Cent)*. 2018 Sep 11;31(4):407-413. doi: 10.1080/08998280.2018.1471884. eCollection 2018 Oct. PubMed PMID: 30948968; PubMed Central PMCID: PMC6413979.
- M545) Brown K, Adams J, **McCullough PA**. Comparison of reflex, resistance training, and core activities using change in blood pressure over time after spontaneous coronary artery dissection. *Proc (Bayl Univ Med Cent)*. 2019 Jan 14;32(1):113-115. doi: 10.1080/08998280.2018.1533308. eCollection 2019 Jan. PubMed PMID: 30956602; PubMed Central PMCID: PMC6442865.
- M546) Sudhakaran S, **McCullough PA**. Common laboratory parameters as indicators of multi-organ dysfunction in acute heart failure. *Eur J Heart Fail*. 2019 Apr 11. doi: 10.1002/ejhf.1466. [Epub ahead of print] PubMed PMID: 30972928.
- M547) Rangaswami J, Mathew RO, Parasuraman R, Tantisattamo E, Lubetzky M, Rao S, Yaqub MS, Birdwell KA, Bennett W, Dalal P, Kapoor R, Lerma EV, Lerman M, McCormick N, Bangalore S, **McCullough PA**, Dadhania DM. Cardiovascular disease in the kidney transplant recipient: epidemiology, diagnosis and management strategies. *Nephrol Dial Transplant*. 2019 May 1;34(5):760-773. doi: 10.1093/ndt/gfz053. PubMed PMID: 30984976.
- M548) Rangaswami J, Soman S, **McCullough PA**. Key Updates in Cardio-Nephrology from 2018: Springboard to a Bright Future. *Cardiorenal Med*. 2019 Apr 17;9(4):222-228. doi: 10.1159/000498916. [Epub ahead of print] PubMed PMID: 30995636.
- M549) Zhang J, Rocha NA, **McCullough PA**. Contribution of ApoCIII to Diabetic Dyslipidemia and Treatment With Volanesorsen. *Rev Cardiovasc Med*. 2018 Mar 30;19(1):13-19. doi: 10.31083/j.rcm.2018.01.890. PubMed PMID: 31032598.
- M550) Tumlin JA, Roy-Chaudhury P, Koplan BA, Costea AI, Kher V, Williamson D, Pokhariyal S, Charytan DM; MiD investigators and Committees (**McCullough PA**) . Relationship between dialytic parameters and reviewer confirmed arrhythmias in hemodialysis patients in the monitoring in dialysis study. *BMC Nephrol*. 2019 Mar 5;20(1):80. doi: 10.1186/s12882-019-1212-6. PubMed PMID: 30836948; PubMed Central PMCID: PMC6402171.
- M551) Kluger AY, Tecson KM, Barbin CM, Lee AY, Lerma EV, Rosol ZP, Rangaswami J, Lepor NE, Cobble ME, **McCullough PA**. Cardiorenal Outcomes in the CANVAS, DECLARE-TIMI 58, and EMPA-REG OUTCOME Trials: A Systematic Review. *Rev Cardiovasc Med*. 2018 Jun 30;19(2):41-49. doi: 10.31083/j.rcm.2018.02.907. PubMed PMID: 31032602.
- M552) **McCullough PA**, Kluger AY, Tecson KM, Barbin CM, Lee AY, Lerma EV, Rosol ZP, Kluger SL, Rangaswami J. Inhibition of the Sodium-Proton Antiporter (Exchanger) is a Plausible Mechanism of Potential Benefit and Harm for Drugs Designed to Block Sodium Glucose Co-transporter 2. *Rev*



Cardiovasc Med. 2018 Jun 30;19(2):51-63. doi: 10.31083/j.rcm.2018.02.021. PubMed PMID: 31032603.

M553) Zanolli L, Lentini P, Briet M, Castellino P, House AA, London GM, Malatino L, **McCullough PA**, Mikhailidis DP, Boutouyrie P. Arterial Stiffness in the Heart Disease of CKD. J Am Soc Nephrol. 2019 Apr 30. pii: ASN.2019020117. doi: 10.1681/ASN.2019020117. [Epub ahead of print] PubMed PMID: 31040188.

M554) House AA, Wanner C, Sarnak MJ, Piña IL, McIntyre CW, Komenda P, Kasiske BL, Deswal A, deFilippi CR, Cleland JGF, Anker SD, Herzog CA, Cheung M, Wheeler DC, Winkelmayr WC, **McCullough PA**; Conference Participants. Heart failure in chronic kidney disease: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. Kidney Int. 2019 Apr 30. pii: S0085-2538(19)30276-5. doi: 10.1016/j.kint.2019.02.022. [Epub ahead of print] PubMed PMID: 31053387.

M555) Sudhakaran S, Bottiglieri T, Tecson KM, Kluger AY, **McCullough PA**. Alteration of lipid metabolism in chronic kidney disease, the role of novel antihyperlipidemic agents, and future directions. Rev Cardiovasc Med. 2018 Sep 30;19(3):77-88. doi: 10.31083/j.rcm.2018.03.908. PubMed PMID: 31054556.

M556) Rangaswami J, Soman S, **McCullough PA**. Key updates in Cardio-Nephrology from 2018: springboard to a bright Future. Rev Cardiovasc Med. 2018 Dec 30;19(4):113-116. doi: 10.31083/j.rcm.2018.04.896. PubMed PMID: 31064161.

M557) Tecson KM, Hashemi H, Afzal A, Gong TA, Kale P, **McCullough PA**. Community-Acquired Acute Kidney Injury as a Risk Factor of de novo Heart Failure Hospitalization. Cardiorenal Med. 2019 May 10;9(4):252-260. doi: 10.1159/000499669. [Epub ahead of print] PubMed PMID: 31079099.

M558) Tumlin JA, Roy-Chaudhury P, Koplan BA, Costea AI, Kher V, Williamson D, Pokhariyal S, Charytan DM; MiD investigators and Committees (**McCullough PA**). Relationship between dialytic parameters and reviewer confirmed arrhythmias in hemodialysis patients in the monitoring in dialysis study. BMC Nephrol. 2019 Mar 5;20(1):80. doi:10.1186/s12882-019-1212-6. PubMed PMID: 30836948; PubMed Central PMCID:PMC6402171.

M559) Vijayaraghavan K, **McCullough PA**, Singh B, Gupta M, Enas E, Mohan V, Misra A, Deedwania P, Brinton EA; for the Consensus Panel Steering Committee . Cardiometabolic-Renal Disease in South Asians: Consensus Recommendations from the Cardio Renal Society of America. Cardiorenal Med. 2019 May 10;9(4):240-251. doi: 10.1159/000499341. [Epub ahead of print] PubMed PMID: 31079117.

M560) **McCullough PA**, Mehta HS, Cork DP, Barker CM, Gunnarsson C, Mollenkopf S, Van Houten J, Verta P. The healthcare burden of disease progression in Medicare patients with functional

mitral regurgitation. J Med Econ. 2019 May 20;1. doi: 10.1080/13696998.2019.1621325. [Epub ahead of print] PubMed PMID: 31104524.

M561) Spinowitz BS, Fishbane S, Pergola PE, Roger SD, Lerma EV, Butler J, von Haehling S, Adler SH, Zhao J, Singh B, Lavin PT, **McCullough PA**, Kosiborod M, Packham DK; ZS-005 Study Investigators. Sodium Zirconium Cyclosilicate among Individuals with Hyperkalemia: A 12-Month Phase 3 Study. Clin J Am Soc Nephrol. 2019 May 20. pii: CJN.12651018. doi: 10.2215/CJN.12651018. [Epub ahead of print] PubMed PMID: 31110051.

M562) Rangaswami J, **McCullough PA**. Clinical Context of DyskalemiAs Across the Heart Failure Spectrum and Their Associated Adverse Outcomes. JACC Heart Fail. 2019 Jun;7(6):533. doi: 10.1016/j.jchf.2019.01.005. PubMed PMID: 31146878.

M563) Ahmad FS, Kallen MA, Schifferdecker KE, Carluzzo KL, Yount SE, Gelow JM, **McCullough PA**, Kimmel SE, Fisher ES, Cella D. Development and Initial Validation of the PROMIS®-Plus-HF Profile Measure. Circ Heart Fail. 2019 Jun;12(6):e005751. doi: 10.1161/CIRCHEARTFAILURE.118.005751. Epub 2019 Jun 5. PubMed PMID: 31163985; PubMed Central PMCID: PMC6711378.

M564) Rizk DV, Silva AL, Pergola PE, Toto R, Warnock DG, Chin MP, Goldsberry A, O'Grady M, Meyer CJ, **McCullough PA**. Effects of Bardoxolone Methyl on Magnesium in Patients with Type 2 Diabetes Mellitus and Chronic Kidney Disease. Cardiorenal Med. 2019;9(5):316-325. doi: 10.1159/000500612. Epub 2019 Jun 6. PubMed PMID: 31170712.

M565) Vasudevan A, Choi JW, Feghali GA, Kluger AY, Lander SR, Tecson KM, Sathyamoorthy M, Schussler JM, Stoler RC, Vallabhan RC, Velasco CE, Yoon A, **McCullough PA**. First and recurrent events after percutaneous coronary intervention: implications for survival analyses. Scand Cardiovasc J. 2019 Jul 25;1-6. doi: 10.1080/14017431.2019.1645349. [Epub ahead of print] PubMed PMID: 31315473.

M566) Cedars A, Tecson KM, Zaidi AN, Lorts A, **McCullough PA**. Impact of Durable Ventricular Assist Device Support on Outcomes of Patients with Congenital Heart Disease Waiting for Heart Transplant. ASAIO J. 2019 Jul 15. doi:10.1097/MAT.0000000000001041. [Epub ahead of print] PubMed PMID: 31335373.

M567) Rangaswami J, Bangalore S, Kaplan B, Birdwell KA, Wiseman AC, **McCullough PA**, Dadhania DM. Cardiovascular disease care fragmentation in kidney transplantation: a call for action. Kidney Int. 2019 Sep;96(3):568-571. doi: 10.1016/j.kint.2019.04.042. Epub 2019 Jun 10. PubMed PMID: 31349974.

M568) Rossing P, Block GA, Chin MP, Goldsberry A, Heerspink HJL, **McCullough PA**, Meyer CJ, Packham D, Pergola PE, Spinowitz B, Sprague SM, Warnock DG, Chertow GM. Effect of bardoxolone methyl on the urine albumin-to-creatinine ratio in patients with type 2 diabetes and stage 4 chronic kidney disease. Kidney Int. 2019 May 16. pii: S0085-2538(19)30503-4. doi: 10.1016/j.kint.2019.04.027. [Epub ahead of print] PubMed PMID: 31377056.

- M569) Kluger AY, Tecson KM, Lee AY, Lerma EV, Rangaswami J, Lepor NE, Cobble ME, **McCullough PA**. Class effects of SGLT2 inhibitors on cardiorenal outcomes. *Cardiovasc Diabetol*. 2019 Aug 5;18(1):99. doi: 10.1186/s12933-019-0903-4. Review. PubMed PMID: 31382965; PubMed Central PMCID: PMC6683461.
- M570) **McCullough PA**, Mehta HS, Barker CM, Cork DP, Gunnarsson C, Ryan MP, Baker ER, Van Houten J, Mollenkopf S, Verta P. The Economic Impact of Mitral Regurgitation on Patients With Medically Managed Heart Failure. *Am J Cardiol*. 2019 Oct 15;124(8):1226-1231. doi: 10.1016/j.amjcard.2019.07.033. Epub 2019 Jul 30. PubMed PMID: 31470974.
- M571) Singhanian G, Ejaz AA, **McCullough PA**, Kluger AY, Balamuthusamy S, Dass B, Singhanian N, Agarwal A. Continuation of Chronic Heart Failure Therapies During Heart Failure Hospitalization - a Review. *Rev Cardiovasc Med*. 2019 Sep 30;20(3):111-120. doi: 10.31083/j.rcm.2019.03.562. Review. PubMed PMID: 31601085.
- M572) **McCullough PA**, Ostermann M, Forni LG, Bihorac A, Koyner JL, Chawla LS, Shi J, Kampf JP, McPherson P, Kellum JA; the Sapphire Investigators. Serial Urinary Tissue Inhibitor of Metalloproteinase-2 and Insulin-Like Growth Factor-Binding Protein 7 and the Prognosis for Acute Kidney Injury over the Course of Critical Illness. *Cardiorenal Med*. 2019;9(6):358-369. doi: 10.1159/000502837. Epub 2019 Oct 16. PubMed PMID: 31618746.
- M573) Husain-Syed F, Birk HW, Ronco C, Schörmann T, Tello K, Richter MJ, Wilhelm J, Sommer N, Steyerberg E, Bauer P, Walmrath HD, Seeger W, **McCullough PA**, Gall H, Ghofrani HA. Doppler-Derived Renal Venous Stasis Index in the Prognosis of Right Heart Failure. *J Am Heart Assoc*. 2019 Nov 5;8(21):e013584. doi: 10.1161/JAHA.119.013584. Epub 2019 Oct 19. PubMed PMID: 31630601; PubMed Central PMCID: PMC6898799.
- M574) Haq A, **McCullough PA**. The Promise of next generation sequencing micro RNA for the discovery of new targets in contrast induced acute kidney injury. *Ann Transl Med*. 2019 Sep;7(18):424. doi: 10.21037/atm.2019.07.83. PubMed PMID: 31700860; PubMed Central PMCID: PMC6803241.
- M575) Lo KB, Gul F, Ram P, Kluger AY, Tecson KM, **McCullough PA**, Rangaswami J. The Effects of SGLT2 Inhibitors on Cardiovascular and Renal Outcomes in Diabetic Patients: A Systematic Review and Meta-Analysis. *Cardiorenal Med*. 2020;10(1):1-10. doi: 10.1159/000503919. Epub 2019 Nov 19. PubMed PMID: 31743918.
- M576) Raju B, **McCullough PA**. Circulating plasma dipeptidyl dipeptidase 3 and the prognosis of cardiogenic shock. *Eur J Heart Fail*. 2020 Feb;22(2):287-289. doi:10.1002/ejhf.1623. Epub 2019 Nov 28. PubMed PMID: 31779037.
- M577) Husain-Syed F, Birk HW, Tello K, Richter MJ, Ronco C, **McCullough PA**, Schörmann T, Ferrari F, Yücel G, Yazdani B, Walmrath HD, Seeger W, Gall H, Ghofrani HA. Alterations in Doppler-

derived renal venous stasis index during decompensation of right heart failure and fluid overload in a patient with pulmonary hypertension. *Rev Cardiovasc Med*. 2019 Dec 30;20(4):263-266. doi: 10.31083/j.rcm.2019.04.564. PubMed PMID: 31912717.

- M578) Weir MR, **McCullough PA**, Buse JB, Anderson J. Renal and Cardiovascular Effects of Sodium Glucose Co-Transporter 2 Inhibitors in Patients with Type 2 Diabetes and Chronic Kidney Disease: Perspectives on the Canagliflozin and Renal Events in Diabetes with Established Nephropathy Clinical Evaluation Trial Results. *Am J Nephrol*. 2020;51(4):276-288. doi: 10.1159/000506533. Epub 2020 Mar 13. PMID: 32172239.
- M579) Cork DP, **McCullough PA**, Mehta HS, Barker CM, Van Houten J, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, Verta P. The economic impact of clinically significant tricuspid regurgitation in a large, administrative claims database. *J Med Econ*. 2020 Mar 2:1-8. doi: 10.1080/13696998.2020.1718681. [Epub ahead of print] PubMed PMID: 31952454.
- M580) Xu MX, Teng RL, Ruddy TD, Schoenhagen P, Bartel T, Di Bartolomeo R, Aksoy O, Desai M, von Kodolitsch Y, Escaned J, **McCullough PA**, Vasudevan A, Shen CX, Zhao X, Zhou YF, Xu HF, Cheng XJ, He YM; written on behalf of the AME Interventional Cardiology Collaborative Group. The CatLet score: a new coronary angiographic scoring tool accommodating the variable coronary anatomy for the first time. *J Thorac Dis*. 2019 Dec;11(12):5199-5209. doi: 10.21037/jtd.2019.12.18. PubMed PMID: 32030237; PubMed Central PMCID: PMC6988012.
- M581) Gopalakrishnan A, Mossaid A, Lo KB, Vasudevan V, **McCullough PA**, Rangaswami J. Fulminant Acute Kidney Injury in a Young Patient with Novel Coronavirus 2019. *Cardiorenal Med*. 2020;10(4):217-222. doi: 10.1159/000508179. Epub 2020 May 6. PMID: 32375150; PMCID: PMC7251584.
- M582) **McCullough PA**. Prevention Guidelines as Failed Minimal Standards of Care. *Am J Cardiol*. 2020 May 1;125(9):1441-1442. doi: 10.1016/j.amjcard.2020.02.001. Epub 2020 Feb 13. PMID: 32145899.
- M583) Rosol ZP, Kopecky KF, Minehart BR, Tecson KM, Vasudevan A, **McCullough PA**, Grayburn PA, Schussler JM. Limitations of transoesophageal echocardiogram in acute ischaemic stroke. *Open Heart*. 2020 Mar 24;7(1):e001176. doi: 10.1136/openhrt-2019-001176. PMID: 32257245; PMCID: PMC7103838.
- M584) Lo KB, **McCullough PA**, Rangaswami J. Antihypertensive drugs and risk of COVID-19? *Lancet Respir Med*. 2020 May;8(5):e29. doi: 10.1016/S2213-2600(20)30156-9. Epub 2020 Mar 26. PMID: 32222167; PMCID: PMC7194509.
- M585) Spertus JA, Jones PG, Maron DJ, O'Brien SM, Reynolds HR, Rosenberg Y, Stone GW, Harrell FE Jr, Boden WE, Weintraub WS, Baloch K, Mavromatis K, Diaz A, Gosselin G, Newman JD, Mavromichalis S, Alexander KP, Cohen DJ, Bangalore S, Hochman JS, Mark DB; ISCHEMIA Research Group (**McCullough PA**, Optimal Medical Management Committee). Health-Status

Outcomes with Invasive or Conservative Care in Coronary Disease. *N Engl J Med*. 2020 Apr 9;382(15):1408-1419. doi: 10.1056/NEJMoa1916370. Epub 2020 Mar 30. PMID: 32227753; PMCID: PMC7261489.

M586) Spertus JA, Jones PG, Maron DJ, Mark DB, O'Brien SM, Fleg JL, Reynolds HR, Stone GW, Sidhu MS, Chaitman BR, Chertow GM, Hochman JS, Bangalore S; ISCHEMIA-CKD Research Group (**McCullough PA** Steering Committee). Health Status after Invasive or Conservative Care in Coronary and Advanced Kidney Disease. *N Engl J Med*. 2020 Apr 23;382(17):1619-1628. doi: 10.1056/NEJMoa1916374. Epub 2020 Mar 30. PMID: 32227754; PMCID: PMC7255621.

M587) Maron DJ, Hochman JS, Reynolds HR, Bangalore S, O'Brien SM, Boden WE, Chaitman BR, Senior R, López-Sendón J, Alexander KP, Lopes RD, Shaw LJ, Berger JS, Newman JD, Sidhu MS, Goodman SG, Ruzyllo W, Gosselin G, Maggioni AP, White HD, Bhargava B, Min JK, Mancini GBJ, Berman DS, Picard MH, Kwong RY, Ali ZA, Mark DB, Spertus JA, Krishnan MN, Elghamazy A, Moorthy N, Hueb WA, Demkow M, Mavromatis K, Bockeria O, Peteiro J, Miller TD, Szwed H, Doerr R, Keltai M, Selvanayagam JB, Steg PG, Held C, Kohsaka S, Mavromichalis S, Kirby R, Jeffries NO, Harrell FE Jr, Rockhold FW, Broderick S, Ferguson TB Jr, Williams DO, Harrington RA, Stone GW, Rosenberg Y; ISCHEMIA Research Group (**McCullough PA**, Optimal Medical Management Committee). Initial Invasive or Conservative Strategy for Stable Coronary Disease. *N Engl J Med*. 2020 Apr 9;382(15):1395-1407. doi: 10.1056/NEJMoa1915922. Epub 2020 Mar 30. PMID: 32227755; PMCID: PMC7263833.

M588) Bangalore S, Maron DJ, O'Brien SM, Fleg JL, Kretov EI, Briguori C, Kaul U, Reynolds HR, Mazurek T, Sidhu MS, Berger JS, Mathew RO, Bockeria O, Broderick S, Pracon R, Herzog CA, Huang Z, Stone GW, Boden WE, Newman JD, Ali ZA, Mark DB, Spertus JA, Alexander KP, Chaitman BR, Chertow GM, Hochman JS; ISCHEMIA-CKD Research Group (**McCullough PA** Steering Committee). Management of Coronary Disease in Patients with Advanced Kidney Disease. *N Engl J Med*. 2020 Apr 23;382(17):1608-1618. doi: 10.1056/NEJMoa1915925. Epub 2020 Mar 30. PMID: 32227756; PMCID: PMC7274537.

M589) Packer M, Butler J, Filippatos GS, Jamal W, Salsali A, Schnee J, Kimura K, Zeller C, George J, Brueckmann M, Anker SD, Zannad F; EMPEROR-Reduced Trial Committees and Investigators (**McCullough PA**, Steering Committee). Evaluation of the effect of sodium-glucose co-transporter 2 inhibition with empagliflozin on morbidity and mortality of patients with chronic heart failure and a reduced ejection fraction: rationale for and design of the EMPEROR-Reduced trial. *Eur J Heart Fail*. 2019 Oct;21(10):1270-1278. doi: 10.1002/ejhf.1536. Epub 2019 Jul 16. PubMed PMID:31584231.

M590) Anker SD, Butler J, Filippatos GS, Jamal W, Salsali A, Schnee J, Kimura K, Zeller C, George J, Brueckmann M, Zannad F, Packer M; EMPEROR-Preserved Trial Committees and Investigators (**McCullough PA**, Steering Committee). Evaluation of the effects of sodium-glucose co-transporter 2 inhibition with empagliflozin on morbidity and mortality in patients with chronic heart failure and a preserved ejection fraction: rationale for and design of the EMPEROR-

Preserved Trial. Eur J Heart Fail. 2019 Oct;21(10):1279-1287. doi: 10.1002/ejhf.1596. Epub 2019 Sep 16. PubMed PMID: 31523904.

- M591) Roger SD, Lavin PT, Lerma EV, **McCullough PA**, Butler J, Spinowitz BS, von Haehling S, Kosiborod M, Zhao J, Fishbane S, Packham DK. Long-term safety and efficacy of sodium zirconium cyclosilicate for hyperkalaemia in patients with mild/moderate versus severe/end-stage chronic kidney disease: comparative results from an open-label, Phase 3 study. Nephrol Dial Transplant. 2020 Feb 6. pii:gfz285. doi: 10.1093/ndt/gfz285. [Epub ahead of print] PubMed PMID: 32030422.
- M592) Oliveros E, Oni ET, Shahzad A, Kluger AY, Lo KB, Rangaswami J, **McCullough PA**. Benefits and Risks of Continuing Angiotensin-Converting Enzyme Inhibitors, Angiotensin II Receptor Antagonists, and Mineralocorticoid Receptor Antagonists during Hospitalizations for Acute Heart Failure. Cardiorenal Med. 2020;10(2):69-84. doi: 10.1159/000504167. Epub 2020 Feb 14. Review. PubMed PMID: 32062648.
- M593) **McCullough PA**, Eidt J, Rangaswami J, Lerma E, Tumlin J, Wheelan K, Katz N, Lepor NE, Vijay K, Soman S, Singh B, McCullough SP, McCullough HB, Palazzuoli A, Ruocco GM, Ronco C. Urgent need for individual mobile phone and institutional reporting of at home, hospitalized, and intensive care unit cases of SARS-CoV-2 (COVID-19) infection. Rev Cardiovasc Med. 2020 Mar 30;21(1):1-7. doi: 10.31083/j.rcm.2020.01.42. PMID: 32259899.
- M594) Ronco F, Tarantini G, **McCullough PA**. Contrast induced acute kidney injury in interventional cardiology: an update and key guidance for clinicians. Rev Cardiovasc Med. 2020 Mar 30;21(1):9-23. doi: 10.31083/j.rcm.2020.01.44. PMID: 32259900.
- M595) Agrawal A, Virk HUH, Riaz I, Jain D, Tripathi B, Krittanawong C, Bozorgnia B, Figueredo V, **McCullough PA**, Rangaswami J. Predictors of 30-day re-admissions in patients with infective endocarditis: a national population based cohort study. Rev Cardiovasc Med. 2020 Mar 30;21(1):123-127. doi: 10.31083/j.rcm.2020.01.552. PMID: 32259911.
- M596) Kazory A, Ronco C, **McCullough PA**. SARS-CoV-2 (COVID-19) and intravascular volume management strategies in the critically ill. Proc (Bayl Univ Med Cent). 2020 Apr 16;0(0):1-6. doi: 10.1080/08998280.2020.1754700. PMID: 32336959; PMCID: PMC7171388.
- M597) Cedars A, Tecson KM, Zaidi AN, Lorts A, **McCullough PA**. Impact of Durable Ventricular Assist Device Support on Outcomes of Patients with Congenital Heart Disease Waiting for Heart Transplant. ASAIO J. 2020 May;66(5):513-519. doi: 10.1097/MAT.0000000000001041. PMID: 31335373.
- M598) Lo KB, **McCullough PA**, Rangaswami J. Mediators of the Effects of Canagliflozin on Heart Failure: Central Role of the Cardiorenal Axis. JACC Heart Fail. 2020 May;8(5):426. doi: 10.1016/j.jchf.2020.01.013. PMID: 32354418.

- M599) Glenister RT, **McCullough PA**. Analysing risk in heart failure: a Kalium check. *Eur J Heart Fail*. 2020 May 10. doi: 10.1002/ehhf.1855. Epub ahead of print. PMID: 32390265.
- M600) **McCullough PA**, Arunthamakun J. Disconnect between community testing and hospitalization for SARS-CoV-2 (COVID-19) infection. *Proc (Bayl Univ Med Cent)*. 2020 May 14;33(3):481. doi: 10.1080/08998280.2020.1762439. PMID: 32675999; PMCID: PMC7340440.
- M601) Cork DP, **McCullough PA**, Mehta HS, Barker CM, Gunnarsson C, Ryan MP, Baker ER, Van Houten J, Mollenkopf S, Verta P. Impact of mitral regurgitation on cardiovascular hospitalization and death in newly diagnosed heart failure patients. *ESC Heart Fail*. 2020 Aug;7(4):1502-1509. doi: 10.1002/ehf2.12653. Epub 2020 May 29. PMID: 32469120; PMCID: PMC7373926.
- M602) Gul F, Lo KB, Peterson J, **McCullough PA**, Goyal A, Rangaswami J. Meta-analysis of outcomes of patients with COVID-19 infection with versus without gastrointestinal symptoms. *Proc (Bayl Univ Med Cent)*. 2020 May 29;33(3):366-369. doi: 10.1080/08998280.2020.1771164. PMID: 32669979; PMCID: PMC7265105.
- M603) Briedis K, Aldujeli A, Aldujeili M, Briede K, Zaliunas R, Hamadeh A, Stoler RC, **McCullough PA**. Considerations for Management of Acute Coronary Syndromes During the SARS-CoV-2 (COVID-19) Pandemic. *Am J Cardiol*. 2020 Sep 15;131:115-119. doi: 10.1016/j.amjcard.2020.06.039. Epub 2020 Jun 30. PMID: 32723554; PMCID: PMC7324338.
- M604) Hamadeh A, Aldujeli A, Briedis K, Tecson KM, Sanz-Sánchez J, Al Dujeili M, Al-Obeidi A, Diez JL, Žaliūnas R, Stoler RC, **McCullough PA**. Characteristics and Outcomes in Patients Presenting With COVID-19 and ST-Segment Elevation Myocardial Infarction. *Am J Cardiol*. 2020 Sep 15;131:1-6. doi: 10.1016/j.amjcard.2020.06.063. Epub 2020 Jul 3. PMID: 32732010; PMCID: PMC7333635.
- M605) Raju B, Roberts CS, Sathyamoorthy M, Schiffman R, Swift C, **McCullough PA**. Ventricular Septal Myectomy for the Treatment of Left Ventricular Outflow Tract Obstruction Due to Fabry Disease. *Am J Cardiol*. 2020 Oct 1;132:160-164. doi: 10.1016/j.amjcard.2020.07.020. Epub 2020 Jul 13. PMID: 32773220.
- M606) Velasco CE, Suarez NP, Roullard CP, **McCullough PA**, Roberts WC. Usefulness of coronary angiography in patients with left atrial myxoma. *Proc (Bayl Univ Med Cent)*. 2020 Jul 6;33(4):529-531. doi: 10.1080/08998280.2020.1776024. PMID: 33100521; PMCID: PMC7549987.
- M607) Gupta S, Hayek SS, Wang W, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Sutherland A, Green A, Shehata AM, Goyal N, Vijayan A, Velez JCQ, Shaefi S, Parikh CR, Arunthamakun J, Athavale AM, Friedman AN, Short SAP, Kibbelaar ZA, Abu Omar S, Admon AJ, Donnelly JP, Gershengorn HB, Hernán MA, Semler MW, Leaf DE; STOP-COVID Investigators (**McCullough PA**, Site Investigator). Factors Associated With Death in Critically Ill Patients With Coronavirus Disease 2019 in the US. *JAMA*

Intern Med. 2020 Jul 15:e203596. doi: 10.1001/jamainternmed.2020.3596. Epub ahead of print. PMID: 32667668; PMCID: PMC7364338.

- M608) Molnar MZ, Bhalla A, Azhar A, Tsujita M, Talwar M, Balaraman V, Sodhi A, Kadaria D, Eason JD, Hayek SS, Coca SG, Shaefi S, Neyra JA, Gupta S, Leaf DE, Kovesdy CP; STOP-COVID Investigators (**McCullough PA**, Site Investigator). Outcomes of critically ill solid organ transplant patients with COVID-19 in the United States. *Am J Transplant*. 2020 Nov;20(11):3061-3071. doi: 10.1111/ajt.16280. Epub 2020 Sep 15. PMID: 32844546; PMCID: PMC7460925.
- M609) Singhanian N, Bansal S, Nimmatoori DP, Ejaz AA, **McCullough PA**, Singhanian G. Current Overview on Hypercoagulability in COVID-19. *Am J Cardiovasc Drugs*. 2020 Aug 4:1–11. doi: 10.1007/s40256-020-00431-z. Epub ahead of print. PMID: 32748336; PMCID: PMC7398761.
- M610) **McCullough PA**, Kelly RJ, Ruocco G, Lerma E, Tumlin J, Wheelan KR, Katz N, Lepor NE, Vijay K, Carter H, Singh B, McCullough SP, Bhambi BK, Palazzuoli A, De Ferrari GM, Milligan GP, Safder T, Tecson KM, Wang DD, McKinnon JE, O'Neill WW, Zervos M, Risch HA. Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection. *Am J Med*. 2020 Aug 7:S0002-9343(20)30673-2. doi: 10.1016/j.amjmed.2020.07.003. Epub ahead of print. PMID: 32771461; PMCID: PMC7410805.
- M611) Raal FJ, Rosenson RS, Reeskamp LF, Hovingh GK, Kastelein JJP, Rubba P, Ali S, Banerjee P, Chan KC, Gipe DA, Khillan N, Pordy R, Weinreich DM, Yancopoulos GD, Zhang Y, Gaudet D; ELIPSE HoFH Investigators (**McCullough PA** Site Investigator). Evinacumab for Homozygous Familial Hypercholesterolemia. *N Engl J Med*. 2020 Aug 20;383(8):711-720. doi: 10.1056/NEJMoa2004215. PMID: 32813947.
- M612) Elsaid O, **McCullough PA**, Tecson KM, Williams RS, Yoon A. Ventricular Fibrillation Storm in Coronavirus 2019. *Am J Cardiol*. 2020 Aug 29:S0002-9149(20)30890-0. doi: 10.1016/j.amjcard.2020.08.033. Epub ahead of print. PMID: 32871109; PMCID: PMC7455792.
- M613) Goyal A, Lo KB, Chatterjee K, Mathew RO, **McCullough PA**, Bangalore S, Rangaswami J. Acute coronary syndromes in the peri-operative period after kidney transplantation in United States. *Clin Transplant*. 2020 Sep 18:e14083. doi: 10.1111/ctr.14083. Epub ahead of print. PMID: 32946629.
- M614) Palazzuoli A, Ruberto F, De Ferrari GM, Forleo G, Secco GG, Ruocco GM, D'Ascenzo F, Mojoli F, Monticone S, Paggi A, Vicenzi M, Corcione S, Palazzo AG, Landolina M, Taravelli E, Tavazzi G, Blasi F, Mancone M, Birtolo LI, Alessandri F, Infusino F, Pugliese F, Fedele F, De Rosa FG, Emmett M, Schussler JM, **McCullough PA**, Tecson KM. Inpatient Mortality According to Level of Respiratory Support Received for Severe Acute Respiratory Syndrome Coronavirus 2 (Coronavirus Disease 2019) Infection: A Prospective Multicenter Study. *Crit Care Explor*. 2020 Sep 18;2(9):e0220. doi: 10.1097/CCE.0000000000000220. PMID: 32984838; PMCID: PMC7505344.



- M615) **McCullough PA**. Favipiravir and the Need for Early Ambulatory Treatment of SARS-CoV-2 Infection (COVID-19). *Antimicrob Agents Chemother*. 2020 Nov 17;64(12):e02017-20. doi: 10.1128/AAC.02017-20. PMID: 32967849; PMCID: PMC7674042.
- M616) Rangaswami J, Bhalla V, de Boer IH, Staruschenko A, Sharp JA, Singh RR, Lo KB, Tuttle K, Vaduganathan M, Ventura H, **McCullough PA**; American Heart Association Council on the Kidney in Cardiovascular Disease; Council on Arteriosclerosis, Thrombosis and Vascular Biology; Council on Cardiovascular and Stroke Nursing; Council on Clinical Cardiology; and Council on Lifestyle and Cardiometabolic Health. Cardiorenal Protection With the Newer Antidiabetic Agents in Patients With Diabetes and Chronic Kidney Disease: A Scientific Statement From the American Heart Association. *Circulation*. 2020 Sep 28;CIR0000000000000920. doi: 10.1161/CIR.0000000000000920. Epub ahead of print. PMID: 32981345.
- M617) Ruocco G, **McCullough PA**, Tecson KM, Mancone M, De Ferrari GM, D'Ascenzo F, De Rosa FG, Paggi A, Forleo G, Secco GG, Pistis G, Monticone S, Vicenzi M, Rota I, Blasi F, Pugliese F, Fedele F, Palazzuoli A. Mortality Risk Assessment Using CHA(2)DS(2)-VASc Scores in Patients Hospitalized With Coronavirus Disease 2019 Infection. *Am J Cardiol*. 2020 Sep 28:S0002-9149(20)31004-3. doi: 10.1016/j.amjcard.2020.09.029. Epub ahead of print. PMID: 32991860; PMCID: PMC7521434.
- M618) Hayek SS, Brenner SK, Azam TU, Shadid HR, Anderson E, Berlin H, Pan M, Meloche C, Feroz R, O'Hayer P, Kaakati R, Bitar A, Padalia K, Perry D, Blakely P, Gupta S, Shaefi S, Srivastava A, Charytan DM, Bansal A, Mallappallil M, Melamed ML, Shehata AM, Sunderram J, Mathews KS, Sutherland AK, Nallamotheu BK, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). In-hospital cardiac arrest in critically ill patients with covid-19: multicenter cohort study. *BMJ*. 2020 Sep 30;371:m3513. doi: 10.1136/bmj.m3513. PMID: 32998872; PMCID: PMC7525342.
- M619) Lo KB, Bhargav R, Salacup G, Pelayo J, Albano J, **McCullough PA**, Rangaswami J. Angiotensin converting enzyme inhibitors and angiotensin II receptor blockers and outcomes in patients with COVID-19: a systematic review and meta-analysis. *Expert Rev Cardiovasc Ther*. 2020 Oct 5:1-12. doi: 10.1080/14779072.2020.1826308. Epub ahead of print. PMID: 32945216.
- M620) Palazzuoli A, Mancone M, De Ferrari GM, Forleo G, Secco GG, Ruocco GM, D'Ascenzo F, Monticone S, Paggi A, Vicenzi M, Palazzo AG, Landolina M, Taravelli E, Tavazzi G, Blasi F, Infusino F, Fedele F, De Rosa FG, Emmett M, Schussler JM, Tecson KM, **McCullough PA**. Antecedent Administration of Angiotensin Converting Enzyme Inhibitors or Angiotensin II Receptor Antagonists and Survival After Hospitalization for SARS-CoV-2 (COVID-19). *J Am Heart Assoc*. 2020 Oct 7:e017364. doi: 10.1161/JAHA.120.017364. Epub ahead of print. PMID: 33023356.
- M621) Zhang J, Tecson KM, **McCullough PA**. Endothelial dysfunction contributes to COVID-19-associated vascular inflammation and coagulopathy. *Reviews in Cardiovascular Medicine*, 2020, 21(3): 315-319. DOI: 10.31083/j.rcm.2020.03.126  
<https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.03.126>

- M622) Zhang J, **McCullough PA**, Tecson KM. Vitamin D deficiency in association with endothelial dysfunction: Implications for patients with COVID-19. *Reviews in Cardiovascular Medicine*, 2020, 21(3): 339-344. DOI: 10.31083/j.rcm.2020.03.131  
<https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.03.131>
- M623) **McCullough PA** Innovative Early Sequenced Multidrug Therapy for Sars-Cov-2 (Covid-19) Infection to Reduce Hospitalization and Death *International Journal of Medical Science and Clinical Invention*7(12): 5139-5150, 2020 DOI:10.18535/ijmsci/v7i12.02
- M624) Flythe JE, Assimon MM, Tugman MJ, Chang EH, Gupta S, Shah J, Sosa MA, Renaghan AD, Melamed ML, Wilson FP, Neyra JA, Rashidi A, Boyle SM, Anand S, Christov M, Thomas LF, Edmonston D, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Characteristics and Outcomes of Individuals With Pre-existing Kidney Disease and COVID-19 Admitted to Intensive Care Units in the United States. *Am J Kidney Dis*. 2020 Sep 19:S0272-6386(20)30999-9. doi: 10.1053/j.ajkd.2020.09.003. Epub ahead of print. PMID: 32961244; PMCID: PMC7501875.
- M625) Gupta S, Coca SG, Chan L, Melamed ML, Brenner SK, Hayek SS, Sutherland A, Puri S, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Schenck EJ, Goyal N, Hedayati SS, Dy R, Bansal A, Athavale A, Nguyen HB, Vijayan A, Charytan DM, Schulze CE, Joo MJ, Friedman AN, Zhang J, Sosa MA, Judd E, Velez JCQ, Mallappallil M, Redfern RE, Bansal AD, Neyra JA, Liu KD, Renaghan AD, Christov M, Molnar MZ, Sharma S, Kamal O, Boateng JO, Short SAP, Admon AJ, Sise ME, Wang W, Parikh CR, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). AKI Treated with Renal Replacement Therapy in Critically Ill Patients with COVID-19. *J Am Soc Nephrol*. 2020 Oct 16:ASN.2020060897. doi: 10.1681/ASN.2020060897. Epub ahead of print. PMID: 33067383.
- M626) Gupta S, Wang W, Hayek SS, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharel KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. *JAMA Intern Med*. 2020 Oct 20:e206252. doi: 10.1001/jamainternmed.2020.6252. Epub ahead of print. PMID: 33080002; PMCID: PMC7577201.
- M627) Chertow GM, Pergola PE, Agarwal R, Block GA, Farag YMK, Jardine AG, Koury MJ, Luo W, Khawaja Z, Lewis EF, Matsushita K, **McCullough PA**, Parfrey PS, Wittes J, Walters KA, Tseng C, Lin T, Sarnak MJ, Vargo DL, Winkelmayer WC, Eckardt KU. Cardiovascular Safety and Efficacy of Vadadustat for the Treatment of Anemia in Non-Dialysis Dependent CKD: Design and Baseline Characteristics. *Am Heart J*. 2020 Oct 29:S0002-8703(20)30354-9. doi: 10.1016/j.ahj.2020.10.068. Epub ahead of print. PMID: 33129989.

- M628) **McCullough PA**, Goldstein JA. A novel strategy to prevent contrast nephropathy: "Continuous hemodiafiltration". *Catheter Cardiovasc Interv*. 2020 Nov;96(6):1182-1183. doi: 10.1002/ccd.29356. PMID: 33217180.
- M629) Aldujeli A, Hamadeh A, Briedis K, Tecson KM, Rutland J, Krivickas Z, Stikloraitis S, Briede K, Aldujeili M, Unikas R, Zaliaduonyte D, Zaliunas R, Vallabhan RC, **McCullough PA**. Delays in Presentation in Patients With Acute Myocardial Infarction During the COVID-19 Pandemic. *Cardiol Res*. 2020 Dec;11(6):386-391. doi: 10.14740/cr1175. Epub 2020 Nov 2. PMID: 33224384; PMCID: PMC7666599.
- M630) Barker CM, Cork DP, **McCullough PA**, Mehta HS, Houten JV, Gunnarsson C, Mollenkopf S, Verta P. Healthcare utilization in clinically significant tricuspid regurgitation patients with and without heart failure. *J Comp Eff Res*. 2020 Nov 11. doi: 10.2217/ce-2020-0198. Epub ahead of print. PMID: 33174767.
- M631) Eckardt KU, Agarwal R, Farag YM, Jardine AG, Khawaja Z, Koury MJ, Luo W, Matsushita K, **McCullough PA**, Parfrey P, Ross G, Sarnak MJ, Vargo D, Winkelmayer WC, Chertow GM. Global Phase 3 programme of vadadustat for treatment of anaemia of chronic kidney disease: rationale, study design and baseline characteristics of dialysis-dependent patients in the INNO2VATE trials. *Nephrol Dial Transplant*. 2020 Nov 14:gfaa204. doi: 10.1093/ndt/gfaa204. Epub ahead of print. PMID: 33188693.
- M632) Rahimi G, Tecson KM, Elsaid O, **McCullough PA**. Role of Ischemic Heart Disease in Major Adverse Renal and Cardiac Events Among Individuals With Heart Failure With Preserved Ejection Fraction (from the TOPCAT Trial). *Am J Cardiol*. 2020 Dec 3:S0002-9149(20)31296-0. doi: 10.1016/j.amjcard.2020.11.034. Epub ahead of print. PMID: 33279481.
- M633) Roger SD, Lavin PT, Lerma EV, **McCullough PA**, Butler J, Spinowitz BS, von Haehling S, Kosiborod M, Zhao J, Fishbane S, Packham DK. Long-term safety and efficacy of sodium zirconium cyclosilicate for hyperkalaemia in patients with mild/moderate versus severe/end-stage chronic kidney disease: comparative results from an open-label, Phase 3 study. *Nephrol Dial Transplant*. 2021 Jan 1;36(1):137-150. doi: 10.1093/ndt/gfz285. PMID: 32030422.
- M634) **McCullough PA**, Oskoui R. Early multidrug regimens in new potentially fatal medical problems. *Rev Cardiovasc Med*. 2020 Dec 30;21(4):507-508. doi: 10.31083/j.rcm.2020.04.270. PMID: 33387995.
- M635) **McCullough PA**, Alexander PE, Armstrong R, Arvinte C, Bain AF, Bartlett RP, Berkowitz RL, Berry AC, Borody TJ, Brewer JH, Brufsky AM, Clarke T, Derwand R, Eck A, Eck J, Eisner RA, Fareed GC, Farella A, Fonseca SNS, Geyer CE Jr, Gonnering RS, Graves KE, Gross KBV, Hazan S, Held KS, Hight HT, Immanuel S, Jacobs MM, Ladapo JA, Lee LH, Littell J, Lozano I, Mangat HS, Marble B, McKinnon JE, Merritt LD, Orient JM, Oskoui R, Pompan DC, Procter BC, Prodromos C, Rajter JC, Rajter JJ, Ram CVS, Rios SS, Risch HA, Robb MJA, Rutherford M, Scholz M, Singleton MM, Tumlin

JA, Tyson BM, Urso RG, Victory K, Vliet EL, Wax CM, Wolkoff AG, Wooll V, Zelenko V. Multifaceted highly targeted sequential multidrug treatment of early ambulatory high-risk SARS-CoV-2 infection (COVID-19). *Rev Cardiovasc Med*. 2020 Dec 30;21(4):517-530. doi: 10.31083/j.rcm.2020.04.264. PMID: 33387997.

M636) Procter BC, Ross C, Pickard V, Smith E, Hanson C, **McCullough PA**. Clinical outcomes after early ambulatory multidrug therapy for high-risk SARS-CoV-2 (COVID-19) infection. *Rev Cardiovasc Med*. 2020 Dec 30;21(4):611-614. doi: 10.31083/j.rcm.2020.04.260. PMID: 33388006.

M637) Gupta S, Wang W, Hayek SS, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharel KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE; STOP-COVID Investigators. (**McCullough PA** Site Investigator). Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. *JAMA Intern Med*. 2021 Jan 1;181(1):41-51. doi: 10.1001/jamainternmed.2020.6252. PMID: 33080002; PMCID: PMC7577201.

M638) Palazzuoli A, Ruocco G, Tecson KM, **McCullough PA**. Screening, detection, and management of heart failure in the SARS-CoV2 (COVID-19) pandemic. *Heart Fail Rev*. 2021 Jan 6:1–7. doi: 10.1007/s10741-020-10068-4. Epub ahead of print. PMID: 33405001; PMCID: PMC7786335.

M639) Al-Samkari H, Gupta S, Leaf RK, Wang W, Rosovsky RP, Brenner SK, Hayek SS, Berlin H, Kapoor R, Shaefi S, Melamed ML, Sutherland A, Radbel J, Green A, Garibaldi BT, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Goyal N, Chan L, Mathews KS, Hedayati SS, Dy R, Toth-Manikowski SM, Zhang J, Mallappallil M, Redfern RE, Bansal AD, Short SAP, Vangel MG, Admon AJ, Semler MW, Bauer KA, Hernán MA, Leaf DE; STOP-COVID-19 Investigators (**McCullough PA** Site Investigator). Thrombosis, Bleeding, and the Observational Effect of Early Therapeutic Anticoagulation on Survival in Critically Ill Patients With COVID-19. *Ann Intern Med*. 2021 Jan 26:M20-6739. doi: 10.7326/M20-6739. Epub ahead of print. PMID: 33493012; PMCID: PMC7863679.

M640) Zhang J, Tecson KM, **McCullough PA**. Role of endothelial cell receptors in the context of SARS-CoV-2 infection (COVID-19). *Proc (Bayl Univ Med Cent)*. 2021 Jan 26;34(2):262-268. doi: 10.1080/08998280.2021.1874231. PMID: 33664552; PMCID: PMC7852287.

M641) Shaefi S, Brenner SK, Gupta S, O'Gara BP, Krajewski ML, Charytan DM, Chaudhry S, Mirza SH, Peev V, Anderson M, Bansal A, Hayek SS, Srivastava A, Mathews KS, Johns TS, Leonberg-Yoo A, Green A, Arunthamkun J, Wille KM, Shaikat T, Singh H, Admon AJ, Semler MW, Hernán MA, Mueller AL, Wang W, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Extracorporeal membrane oxygenation in patients with severe respiratory failure from COVID-19. *Intensive Care Med*. 2021 Feb;47(2):208-221. doi: 10.1007/s00134-020-06331-9. Epub 2021 Feb 2. PMID: 33528595; PMCID: PMC7851810.

- M642) Short SAP, Gupta S, Brenner SK, Hayek SS, Srivastava A, Shaefi S, Singh H, Wu B, Bagchi A, Al-Samkari H, Dy R, Wilkinson K, Zakai NA, Leaf DE; STOP-COVID Investigators(**McCullough PA** Site Investigator). D-dimer and Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit Care Med*. 2021 Feb 12. doi: 10.1097/CCM.0000000000004917. Epub ahead of print. PMID: 33591017.
- M643) Mathews KS, Soh H, Shaefi S, Wang W, Bose S, Coca S, Gupta S, Hayek SS, Srivastava A, Brenner SK, Radbel J, Green A, Sutherland A, Leonberg-Yoo A, Shehata A, Schenck EJ, Short SAP, Hernán MA, Chan L, Leaf DE; Study of the Treatment and Outcomes in Critically Ill Patients with Coronavirus Disease (STOP-COVID) Investigators(**McCullough PA** Site Investigator). Prone Positioning and Survival in Mechanically Ventilated Patients With Coronavirus Disease 2019-Related Respiratory Failure. *Crit Care Med*. 2021 Feb 17. doi: 10.1097/CCM.0000000000004938. Epub ahead of print. PMID: 33595960.
- M644) Aldujeli A, Hamadeh A, Tecson KM, Krivickas Z, Maciulevicius L, Stikloraitis S, Sukys M, Briedis K, Aldujeili M, Briede K, Braukyliene R, Pranculis A, Unikas R, Zaliaduonyte D, **McCullough PA**. Six-Month Outcomes for COVID-19 Negative Patients with Acute Myocardial Infarction Before Versus During the COVID-19 Pandemic. *Am J Cardiol*. 2021 Feb 23:S0002-9149(21)00161-2. doi: 10.1016/j.amjcard.2021.01.043. Epub ahead of print. PMID: 33631113; PMCID: PMC7900754.
- M645) **McCullough PA**, Rahimi G, Tecson KM. Ambulatory Worsening of Renal Function in Heart Failure With Preserved Ejection Fraction. *J Am Coll Cardiol*. 2021 Mar 9;77(9):1222-1224. doi: 10.1016/j.jacc.2021.01.007. PMID: 33663740.
- M646) Kalantar-Zadeh K, **McCullough PA**, Agarwal SK, Beddhu S, Boaz M, Bruchfeld A, Chauveau P, Chen J, de Sequera P, Gedney N, Golper TA, Gupta M, Harris T, Hartwell L, Liakopoulos V, Kopple JD, Kovesdy CP, Macdougall IC, Mann JFE, Molony D, Norris KC, Perlmutter J, Rhee CM, Riella LV, Weisbord SD, Zoccali C, Goldsmith D. Nomenclature in nephrology: preserving 'renal' and 'nephro' in the glossary of kidney health and disease. *J Nephrol*. 2021 Mar 13. doi: 10.1007/s40620-021-01011-3. Epub ahead of print. PMID: 33713333.
- M647) **McCullough PA**. Anemia of cardiorenal syndrome. *Kidney Int Suppl* (2011). 2021 Apr;11(1):35-45. doi: 10.1016/j.kisu.2020.12.001. Epub 2021 Mar 18. PMID: 33777494; PMCID: PMC7983020.
- M648) Lo KB, Toroghi HM, Salacup G, Jiang J, Bhargav R, Quintero E, Balestrini K, Shahzad A, Mathew RO, **McCullough PA**, Rangaswami J. Angiotensin converting enzyme inhibitors and angiotensin receptor blockers in acute heart failure: invasive hemodynamic parameters and clinical outcomes. *Rev Cardiovasc Med*. 2021 Mar 30;22(1):199-206. doi: 10.31083/j.rcm.2021.01.216. PMID: 33792263.

- M649) Kellum JA, Artigas A, Gunnerson KJ, Honore PM, Kampf JP, Kwan T, McPherson P, Nguyen HB, Rimmelé T, Shapiro NI, Shi J, Vincent JL, Chawla LS; Sapphire Investigators (**McCullough PA** Site Investigator). Use of Biomarkers to Identify Acute Kidney Injury to Help Detect Sepsis in Patients With Infection. *Crit Care Med*. 2021 Apr 1;49(4):e360-e368. doi: 10.1097/CCM.0000000000004845. PMID: 33566467; PMCID: PMC7963439.
- M650) Procter BC, Ross C, Pickard V, Smith E, Hanson C, **McCullough PA**. Early Ambulatory Multidrug Therapy Reduces Hospitalization and Death in High-Risk Patients with SARS-CoV-2 (COVID-19). *ijirms* [Internet]. 2021Mar.17 [cited 2021Apr.28];6(03):219 - 221. <https://www.ijirms.in/index.php/ijirms/article/view/1100>, <https://www.ijirms.in/index.php/ijirms/article/view/1100#downloadTab>
- M651) **McCullough PA**, Vijay K. SARS-CoV-2 infection and the COVID-19 pandemic: a call to action for therapy and interventions to resolve the crisis of hospitalization, death, and handle the aftermath. *Rev Cardiovasc Med*. 2021 Mar 30;22(1):9-10. doi: 10.31083/j.rcm.2021.01.301. PMID: 33792243.
- M652) Valdenor C, **McCullough PA**, Paculdo D, Acelajado MC, Dahlen JR, Noiri E, Sugaya T, Peabody J. Measuring the Variation in the Prevention and Treatment of CI-AKI Among Interventional Cardiologists. *Curr Probl Cardiol*. 2021 Apr 3:100851. doi: 10.1016/j.cpcardiol.2021.100851. Epub ahead of print. PMID: 33994040.
- M653) Ishida JH, Chauhan C, Gillespie B, Gruchalla K, **McCullough PA**, Quella S, Romero A, Rossignol P, Wheeler DC, Malley MA, West M, Herzog CA. Understanding and Overcoming the Challenges Related to Cardiovascular Trials Involving Patients with Kidney Disease. *Clin J Am Soc Nephrol*. 2021 Apr 23:CJN.17561120. doi: 10.2215/CJN.17561120. Epub ahead of print. PMID: 33893163.
- M654) Chertow GM, Pergola PE, Farag YMK, Agarwal R, Arnold S, Bako G, Block GA, Burke S, Castillo FP, Jardine AG, Khawaja Z, Koury MJ, Lewis EF, Lin T, Luo W, Maroni BJ, Matsushita K, **McCullough PA**, Parfrey PS, Roy-Chaudhury P, Sarnak MJ, Sharma A, Spinowitz B, Tseng C, Tumlin J, Vargo DL, Walters KA, Winkelmayer WC, Wittes J, Eckardt KU; PROTECT Study Group. Vadadustat in Patients with Anemia and Non-Dialysis-Dependent CKD. *N Engl J Med*. 2021 Apr 29;384(17):1589-1600. doi: 10.1056/NEJMoa2035938. PMID: 33913637.
- M655) Eckardt KU, Agarwal R, Aswad A, Awad A, Block GA, Bacci MR, Farag YMK, Fishbane S, Hubert H, Jardine A, Khawaja Z, Koury MJ, Maroni BJ, Matsushita K, **McCullough PA**, Lewis EF, Luo W, Parfrey PS, Pergola P, Sarnak MJ, Spinowitz B, Tumlin J, Vargo DL, Walters KA, Winkelmayer WC, Wittes J, Zwiech R, Chertow GM. Safety and Efficacy of Vadadustat for Anemia in Patients Undergoing Dialysis. *N Engl J Med*. 2021 Apr 29;384(17):1601-1612. doi: 10.1056/NEJMoa2025956. PMID: 33913638.
- M656) Short SAP, Gupta S, Brenner SK, Hayek SS, Srivastava A, Shaefi S, Singh H, Wu B, Bagchi A, Al-Samkari H, Dy R, Wilkinson K, Zakai NA, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). d-dimer and Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit*

Care Med. 2021 May 1;49(5):e500-e511. doi: 10.1097/CCM.00000000000004917. PMID: 33591017.

- M657) Swolinsky JS, Nerger NP, Leistner DM, Edelmann F, Knebel F, Tuvshinbat E, Lemke C, Roehle R, Haase M, Costanzo MR, Rauch G, Mitrovic V, Gasanin E, Meier D, **McCullough PA**, Eckardt KU, Molitoris BA, Schmidt-Ott KM. Serum creatinine and cystatin C-based estimates of glomerular filtration rate are misleading in acute heart failure. ESC Heart Fail. 2021 May 6. doi: 10.1002/ehf2.13404. Epub ahead of print. PMID: 33955699.
- M658) Palazzuoli A, Tecson KM, Ronco C, **McCullough PA**. Nomenclature for Kidney Function from KDIGO: Shortcomings of Terminology Oversimplification. Cardiorenal Med. 2021 Jun 4:1-4. doi: 10.1159/000516615. Epub ahead of print. PMID: 34091445.
- M659) Vasquez CR, Gupta S, Miano TA, Roche M, Hsu J, Yang W, Holena DN, Reilly JP, Schrauben SJ, Leaf DE, Shashaty MGS; STOP-COVID Investigators (**McCullough PA** Site Investigator). Identification of Distinct Clinical Subphenotypes in Critically Ill Patients With COVID-19. Chest. 2021 May 6:S0012-3692(21)00874-6. doi: 10.1016/j.chest.2021.04.062. Epub ahead of print. PMID: 33964301; PMCID: PMC8099539.
- M660) Alexander PE, Armstrong R, Fareed G, Lotus J, Oskoui R, Prodromos C, Risch HA, Tenenbaum HC, Wax CM, Dara P, **McCullough PA**, Gill KK. Early multidrug treatment of SARS-CoV-2 infection (COVID-19) and reduced mortality among nursing home (or outpatient/ambulatory) residents. Med Hypotheses. 2021 Jun 5;153:110622. doi: 10.1016/j.mehy.2021.110622. Epub ahead of print. PMID: 34130113; PMCID: PMC8178530.
- M661) Mathews KS, Soh H, Shaefi S, Wang W, Bose S, Coca S, Gupta S, Hayek SS, Srivastava A, Brenner SK, Radbel J, Green A, Sutherland A, Leonberg-Yoo A, Shehata A, Schenck EJ, Short SAP, Hernán MA, Chan L, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator) . Prone Positioning and Survival in Mechanically Ventilated Patients With Coronavirus Disease 2019-Related Respiratory Failure. Crit Care Med. 2021 Jul 1;49(7):1026-1037. doi: 10.1097/CCM.00000000000004938. PMID: 33595960; PMCID: PMC8277560.
- M662) **McCullough PA**, Mehta HS, Barker CM, Houten JV, Mollenkopf S, Gunnarsson C, Ryan M, Cork DP. Healthcare utilization and guideline-directed medical therapy in heart failure patients with reduced ejection fraction. J Comp Eff Res. 2021 Jul 6. doi: 10.2217/cer-2021-0118. Epub ahead of print. PMID: 34225473.
- M663) Palazzuoli A, Tecson KM, **McCullough PA**. Impact of renin-angiotensin-aldosterone system inhibitor continuation on outcomes for patients with severe coronavirus disease 2019 manifestations. J Hypertens. 2021 Aug 1;39(8):1725-1726. doi: 10.1097/HJH.00000000000002876. PMID: 34188007.
- M664) **McCullough PA**, Mehta HS, Barker CM, Van Houten J, Mollenkopf S, Gunnarsson C, Ryan M, Cork DP. Mortality and guideline-directed medical therapy in real-world heart failure patients

with reduced ejection fraction. Clin Cardiol. 2021 Aug 3. doi: 10.1002/clc.23664. Epub ahead of print. PMID: 34342033.

### Published Letters

- ltr1) **McCullough PA**, O'Neill WW. *Letter to the Editor: Regional Variation Across the United States in the Management of Acute Myocardial Infarction.* New Engl J Med 1996;334:194; discussion 194-5. PMID: 96127997
- ltr2) **McCullough PA**, O'Neill WW. *Letter to the Editor: Patient care after percutaneous coronary artery interventions.* Ann Intern Med 1998 Apr 1;128:598; discussion 599-600. PMID: 98175287
- ltr3) **McCullough PA**, Redle JD. *Letter to the Editor: Amiodarone Prophylaxis for Atrial Fibrillation after Bypass Surgery.* New Engl J Med 1998;338:1383; discussion 1384. PMID: 98223116
- ltr4) Sharma ND, **McCullough PA**. *Letter to the Editor: Predictability of left ventricular thrombus by mitral regurgitation.* Am Heart J 1999 Feb;137(2):373-5. PMID: 99156058
- ltr5) **McCullough PA**, Marks KR. *Letter to the Editor: Ticlopidine and TTP after Coronary Stenting.* JAMA 1999;282(18):1717-1718;discussion 1718-9. PMID: 10568636
- ltr6) **McCullough PA**, Sandberg KR, Thompson RJ. *Letter to the Editor: Predicting Outcomes after Cardiopulmonary Resuscitation.* Arch Intern Med 2001;161(4):615-616. PMID: 11252131
- ltr7) **McCullough PA**. *Letter to the Editor: The Anti-inflammatory Effect of Statins.* N Engl J Med. 2001 Oct 18;345(16):1209; discussion 1210-1. PMID: 11642241
- ltr8) **McCullough PA**, Sandberg KR, Borzak S. *Letter to the Editor: Cardiovascular outcomes and renal disease.* Ann Intern Med. 2002 Apr 16;136(8):633-4; discussion 633-4. PMID: 11955038
- ltr9) **McCullough PA**. Reply to Manhapra A, Why is chronic kidney disease the "spoiler" for cardiovascular outcomes: an alternate take from a generalist. J Am Coll Cardiol. 2004 Mar 3;43(5):924; author reply 924-5. PMID: 15006584
- ltr10) Omland T, Knudsen CW, **McCullough PA**, Maisel AS. Response to LTE. #2005-624 - Schwam. Ann Emerg Med. 2006 Feb;47(2):214. PMID: 16431243
- ltr11) Barker D, Artis N, Tan LB, DeJong A, Franklin BA, **McCullough PA**. Correcting data for body size may confound results. Chest. 2006 Feb;129(2):493-4. PMID: 16478872
- ltr12) **McCullough PA**. Failure of beta-blockers in the reduction of perioperative events: Where did we go wrong? Response to the letter to the Editor by Souza et al. Am Heart J. 2007 Jun;153(6):e39. PMID: 17540183



- ltr13) **McCullough PA.** Multimodality prevention of contrast-induced acute kidney injury, In Reply. Am J Kidney Dis. 2008 Jun;51(6):1068-1069. PMID: 18501789
- ltr14) **McCullough PA,** Collins AJ, Vassalotti JA. Rapid Response: Optimal Definition of Chronic Kidney Disease as a Cardiovascular Risk State. Southern Medical Journal, Volume 101, 977 Number 10, October 2008
- ltr15) Neyou A, **McCullough PA.** Response to letter to the editor. Am J Emerg Med. 2010 Dec 1. [Epub ahead of print] No abstract available. PMID: 21129890
- ltr16) Palazzuoli A, Ronco C, **McCullough PA.** Letter by Palazzuoli et al regarding article, "is worsening renal function an ominous prognostic sign in patients with acute heart failure? The role of congestion and its interaction with renal function". Circ Heart Fail. 2012 Jul 1;5(4):e79. PubMed PMID: 22811554
- ltr17) O'Keefe JH, Patil HR, Magalski A, Lavie CJ, Vogel RA, **McCullough PA.** In reply. Mayo Clin Proc. 2012 Nov;87(11):1133-4. doi: 10.1016/j.mayocp.2012.08.010. PubMed PMID: 23127740
- ltr18) **McCullough PA.** Reply: Vitamin E May Protect Against Contrast-Induced Acute Kidney Injury. J Am Coll Cardiol. 2017 Apr 11;69(14):1878-1879. doi: 10.1016/j.jacc.2017.01.053. PubMed PMID: 28385321
- ltr19) Rangaswami J, **McCullough PA.** Efficacy of Subcutaneous Versus Intravenous Administration of Furosemide in Patients With Worsening Heart Failure: The Devil Is in the Details. JACC Heart Fail. 2018 Mar;6(3):266-267. doi: 10.1016/j.jchf.2018.01.010. PubMed PMID: 29496028
- ltr20) Rangaswami J, **McCullough PA.** Clinical Context of DyskalemiAs Across the Heart Failure Spectrum and Their Associated Adverse Outcomes. JACC Heart Fail. 2019 Jun;7(6):533. doi: 10.1016/j.jchf.2019.01.005. PubMed PMID: 31146878.
- ltr21) **McCullough PA.** The Reply. Am J Med. 2021 Mar;134(3):e222-e223. doi: 10.1016/j.amjmed.2020.10.036. PMID: 33637181; PMCID: PMC7901366.
- ltr22) **McCullough PA.** The Reply. Am J Med. 2021 Apr;134(4):e298. doi: 10.1016/j.amjmed.2020.11.028. PMID: 33888224; PMCID: PMC8054639.
- ltr23) **McCullough PA.** Regarding: "Hydroxychloroquine: a comprehensive review and its controversial role in coronavirus disease 2019". Ann Med. 2021 Dec;53(1):286. doi: 10.1080/07853890.2021.1872094. PMID: 33439042; PMCID: PMC7877973.
- ltr24) **McCullough PA.** The Reply. Am J Med. 2021 May;134(5):e343-e344. doi: 10.1016/j.amjmed.2021.01.011. PMID: 33962708; PMCID: PMC8095713.

ltr25) **McCullough PA.** The Reply. *Am J Med.* 2021 May;134(5):e346-e347. doi: 10.1016/j.amjmed.2021.01.013. PMID: 33962710; PMCID: PMC8095728.

ltr26) **McCullough PA.** The Reply. *Am J Med.* 2021 Jul;134(7):e440-e441. doi: 10.1016/j.amjmed.2021.02.024. PMID: 34183150; PMCID: PMC8229557.

### Textbook Chapters

- T1) **McCullough PA,** Goldstein JG. *Chapter 5: Heart Pressures and Catheterization.* Cardiac Catheterization: Concepts, Techniques, and Applications. Uretsky BF, Editor, Blackwell Science, Inc., Boston, 1997. ISBN 9780865424067
- T2) **McCullough PA.** Section III, *Chapter 7: Epidemiology of Coronary Heart Disease.* Interventional Cardiovascular Medicine: Principles and Practice, Second Edition. Roubin GS, O'Neill WW, Stack RS, Editors, Churchill Livingstone Inc., Philadelphia and New York, 2002, III, 7, 138-159. ISBN 9780443079795
- T3) Franklin BA, **McCullough PA,** Timmis GC. *Chapter: Exercise.* Randomized Trials in Cardiovascular Disease: a Companion Volume to Eugene Braunwald's "Heart Disease." Hennekins CH, Buring JE, Ridker PM, Manson JE, Editors, W. B. Saunders Inc., New York, 1998.
- T4) **McCullough PA.** *Chapter 4. General Examination and Examination Skills, p 41-57* Clinical Exercise Physiology. Ehrman JK, Gordon PM, Visich PS, Keteyian SJ, Editors, Human Kinetics Publishers, Inc., 2003. ISBN 9780736002523
- T5) Malineni K, **McCullough PA.** Chapter: *Sudden Cardiac Death*, eMedicine.com, Textbook of Medicine, Obstetrics and Gynecology, Psychiatry, and Surgery, 2001.
- T6) **McCullough PA.** Chapter 21: *Outcome of Myocardial Infarction in Patients with Renal Failure*, Harrison's Advances in Cardiology, Eugene Braunwald, M.D., Editor, 2003. pp 123-128. McGraw-Hill, New York, NY. ISBN 9780071370882
- T7) **McCullough PA.** Chapter 26. *Renal Injury Following Contrast Agents*, Peripheral Vascular Disease: Basic Diagnosis and Therapeutic Approaches, Editor: George S. Abela, MD, 2003, pp 000-000. Lippincott Williams & Wilkins, Philadelphia, PA. ISBN 9780781743839
- T8) **McCullough PA.** The effect of renal disease on outcomes of vascular surgery. Fast Facts in Vascular Surgery, Health Press, Alun H. Davies, MA, DM, FRCS, Editor, 2003-2004;74-86. ISBN 9781903734513

- T9) **McCullough PA.** Interface between renal disease and cardiovascular illness. Braunwald's Heart Disease, 7<sup>th</sup> Edition, 2004, Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9780721604794
- T10) **McCullough PA.** Interface between renal disease and cardiovascular illness. Braunwald's Heart Disease, 8<sup>th</sup> Edition, 2006, Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781416041030
- T11) **McCullough PA.** Chapter 23. Renal Complications of Contrast Media: Contrast-Induced Nephropathy, p 239-249. Interventional Cardiology, 1<sup>st</sup> Edition, 2007. King S, Yeung A, Editors. The McGraw-Hill Medical, New York. ISBN 9780071415279
- T12) **McCullough PA.** Chapter 14. Natriuretic peptides in patients with renal failure, p 170-180. Markers in Cardiology: A Case Oriented Approach, 2007. Adams JE, Jaffe AS, Apple F, Editors. Blackwell Futura, 2007. ISBN 9781405134187
- T13) Miller WM, **McCullough PA.** Chapter 21. Obesity, p209-218. Pollock's Textbook of Cardiovascular Disease and Rehabilitation. Durstine JL, Moore GE, LaMonte MJ, Franklin BA, Editors. Human Kinetics, 2008. ISBN 0000736059679
- T14) Franklin BA, Miller WM, **McCullough PA.** Chapter 11: The Metabolic Syndrome. American Council on Exercise Advanced Health and Fitness Specialist Manual. Edited by Bryant CX, Green DJ. San Diego, CA. American Council on Exercise; 2008:239-254. ISBN 9781890720278
- T15) Marso SP, **McCullough PA.** Chapter 8: Patient-Specific Approaches and Considerations: Unique Subgroups—Diabetes, Renal Failure, Advanced Age. American College of Cardiology Cardiac Catheterization and Interventional Self-Assessment Program 3 (CathSAP-3), David J. Moliterno, Editor. ACC, 2008.  
<http://www.cardiosource.com/GenSAPX/>
- T16) Franklin BA, Miller WM, Nori K, **McCullough PA.** Chapter 12: Guidelines for Exercise Testing in Diabetics Starting an Exercise Program. Contemporary Diabetes: Diabetes and Exercise. Edited by Regensteiner JC, Reusch JEB, Stewart K, Veves A. Totowa, NJ: Humana Press; 2009:263-277. ISBN 9781588299260
- T17) Nguyen, T, Yee T, Mai T, Phan T, **McCullough PA.** Chapter 6: Diet. Evidence Based Cardiology Practice: A 21<sup>st</sup> Century Approach. Edited by Hu D, Nguyen T, Kim MH, Kwan T, Grines CL, Saito S. Peoples Medical Publishing House—USA, Shelton, CT; 2010; 145-161. ISBN 9781607950950
- T18) Kodenchery M, Bhat S, El-Ghoroury M, Yamasaki H, **McCullough PA.** "Coronary Angiography Before and After Renal Transplantation" Coronary Angiography - The Need for Improvement in Medical and Interventional Therapy, edited by Branislav Baškot. InTech -

Open Access Publisher, Rijeka, Croatia, Website: <http://www.intechweb.org/>, permanent web address: <http://www.intechopen.com/articles/show/title/coronary-angiography-before-and-after-renal-transplantation>. ISBN 9789533076416

- T19) Marinescu V, **McCullough PA**. Chapter 5d. Managing Comorbidities. Chronic Kidney Disease. Hypertension. Bakris G and Baliga RR Editors, Oxford American Cardiology Library, Oxford University Press, New York, NY 2012; 71-81. ISBN 9780199754908
- T20) **McCullough PA**. Chapter 43. Contrast-Induced Acute Kidney Injury. Specialty Board Review: Cardiology. Baliga RR Editor. The McGraw-Hill Companies, Inc., China, 2012; 467-473. ISBN 9780071614085
- T21) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. Medical Clinics of North America: Obesity. LeRoith D and Karnieli E, Editors. WB Saunders Company, New York, NY, 2011 95(5):919-937. ISBN 9781455723690
- T22) **McCullough PA**. Chapter: Interface between renal disease and cardiovascular illness. Braunwald's Heart Disease, 9<sup>th</sup> Edition, 2011. Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781437727081
- T23) Hanson ID, **McCullough PA**. B-type natriuretic peptide: beyond diagnostic applications. The Kidney in Heart Failure. Bakris GL Editor. Springer, New York, NY, 2012;67-77. ISBN 9781461436935
- T24) Brown JE, **McCullough PA**. Chapter 5: Contrast Nephropathy and Kidney Injury. Textbook of Cardiovascular Intervention, Thompson, CA (Editor), Springer, 2014 (5) 53-63. ISBN 9781447145288
- T25) Franklin BA, Miller WM, **McCullough PA**. Chapter 12, The Metabolic Syndrome, American Medical Council, Medical Exercise Specialist Manual, Skinner JS, Bryant CX, Merrill S, Green DJ. American Council on Exercise 2015, San Diego CA. ISBN 9781890720520
- T26) Stewart D, Shah G, Brown JR, **McCullough, PA**. Chapter 240 Contrast-induced acute kidney injury, Oxford Textbook of Clinical Nephrology, 4th Edition, Managing Editors Turner Goldsmith DJ, Winearls C, Lamierre N, Himmelfarb J, Remuzzi G, Editors, 2015, Oxford University Press, United Kingdom. ISBN 9780199592548
- T27) Goldsmith DJ, Kumar N, Henderson H, Cameron BD, **McCullough PA**. Chapter 106 Malnutrition, obesity, and undernutrition in chronic kidney disease, Oxford Textbook of Clinical Nephrology, 4th Edition, Managing Editors Turner Goldsmith DJ, Winearls C, Lamierre N, Himmelfarb J, Remuzzi G, Editors, 2015, Oxford University Press, United Kingdom. ISBN 9780199592548

- T28) **McCullough PA.** Chapter 18 Future Therapeutic Prospects for Treatment of Cardiorenal Syndromes, p 189-195, *Cardiorenal Challenges*. Goldsmith DA, Covic A, Spaak J. Editors, Springer International Publishing AG, Cham, 2015, Zug, Switzerland. ISBN 9783319091624
- T29) **McCullough PA.** Chapter 88: Interface between renal disease and cardiovascular illness. *Braunwald's Heart Disease*, 10<sup>th</sup> Edition, 2015, pp 1909-1930. Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781455751334
- T30) **McCullough PA.** Chapter 24: Cardiovascular Disease in Chronic Kidney Disease. *Essentials of Chronic Kidney Disease*, 2015, pp 239-245. Fadem SZ, Editor, Nova Publishers, ISBN-13: 978-1634825429
- T31) Prasad A, **McCullough PA.** Chapter 19: Renal Complications of Contrast Media. *Interventional Cardiology*, 2<sup>nd</sup> Edition, 2018, pp 293-306. Samady H, Fearon WF, Yeung AC, King SB, Editors, McGraw-Hill, ISBN-13: 978-0071820363
- T32) Rangaswami J, Lerma EV, **McCullough PA**, Editors. *Kidney Disease in the Cardiac Catheterization Laboratory*, 1<sup>st</sup> Edition 2020, ISBN-13: 978-3030454135 ISBN-10: 3030454134, Springer Nature Switzerland AG. Chapter 27 Ronco C, Ronco F, **McCullough PA.** A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine, pp 449-463.
- T33) **McCullough PA**, Ronco C. *Textbook of Cardiorenal Medicine*, 1<sup>st</sup> Edition 2021, ISBN-13: 978-3030574598 ISBN-10: 3030574598, Springer Nature Switzerland AG. Chapter 1 **McCullough PA**, Kluger AY. Implications of Chronic Kidney Disease on the Epidemiology of Cardiovascular Disease, pp 1-6. Chapter 8 Rocha N, **McCullough PA.** Type 2 Cardiorenal Syndrome, pp 75-94. Chapter 17 **McCullough PA** Novel Biomarkers of Chronic Cardiorenal Disease, pp 227-234.

#### Invited Non-Peer Reviewed Works

- 1) **McCullough PA.** *Acute Renal Failure after Coronary Intervention*. American College of Cardiology Educational Highlights, Fall 1997 Issue, C.R. Conti, Editor
- 2) **McCullough PA**, Thompson RJ, Tobin KJ, Kahn JK, Schwender F, O'Neill WW. *Outcome of Out-of-Hospital Cardiac Arrest Survivors*. *Cardiology Review*, 2000;17:15-19
- 3) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. *A Simple Scoring System to Predict Clinical Outcome after Resuscitation from Cardiac Arrest*. *The Journal of Critical Illness*, 1998;13:298-300
- 4) **McCullough PA.** *Clinical Evaluation. Part I. The Cardiopulmonary System*. *Clinical Exercise Physiology*, 1999;1:33-41

- 5) **McCullough PA.** *Clinical Evaluation. Part II. The Musculoskeletal and other Body Systems.* Clinical Exercise Physiology, 1999:1:92-99
- 6) **McCullough PA.** *Ridogrel: Literature Evaluation.* IDdb Reports, Current Drugs Ltd, February, 1999
- 7) **McCullough PA.** Debate Commentary: Complete Assessment of the Lipid Profile is Advised. Medical Crossfire, 1999:5;52
- 8) **McCullough PA.** Narrative Fields in Hospital Records. Invited comment on Loss of Narrative Data in New Zealand Health Statistics Public Hospital Injury Files, John Langley (Australasian Epidemiologist 1998:5.4). The Australasian Epidemiologist, 1999;6.1:17-18
- 9) **McCullough PA.** Previews in Cardiovascular Medicine: Prediction and Prevention of Contrast Nephropathy. Rev Cardiovasc Med. 2001;2(Suppl 1):S1-S3
- 10) Creager MA, Faxon DP, Fonarow GC, Gross SB, Hachamovitch R, Jacobs AK, Lepor NE, **McCullough PA**, Naqvi T, Nesto RW, Prystowsky EN, Shah PK, Vogel RA, Yeung AC. Meeting Reviews: Best of the AHA Scientific Sessions, 2001. Rev Cardiovasc Med. 2002;3(1):22-48
- 11) **McCullough PA.** Update from the International Society on Hypertension in Blacks. Rev Cardiovasc Med. 2002 Fall;3(4):192-95. PMID: 12650156
- 12) Nguyen PN, Spertus JA, **McCullough PA.** Is there a Heart Failure Epidemic? Cardiology Review 2002;19(9):32-36
- 13) Lepor NE, Yeung AC, **McCullough PA**, Creager MA, Weber MA, Jacobs AK, Faxon DP, Vogel RA, Gersh BJ. Meeting Review: Best of the ACC Scientific Session 2002. Rev Cardiovasc Med 2002;3(2):85-104
- 14) Franklin BA, deJong A, **McCullough PA.** Interpreting Exercise Test-Fitness Data for Your Patients. Am J Sports 2003;5:12-17
- 15) **McCullough PA.** The interface between heart disease and renal dysfunction: from association to action. ACC Current Journal Review 2003;12(2):20-24
- 16) Fonarow GC, Prystowsky EN, **McCullough PA**, Lepor NE, Watson KE, Gersh BJ, Young JJ, Kereiakes D, Faxon DP, Weyman A, Jacobs AK, Yeung A, Holmes D, Berger P, Weber MA. Meeting Review: Best of the ACC Scientific Sessions 2003. Rev Cardiovasc Med. 2003;4(3):150-179
- 17) **McCullough PA.** Debate Commentary: Atrial Fibrillation: Preventing Thromboembolism and Ischemic Stroke. Medical Crossfire 2003, 4(10), 3-17

- 18) Creager M, Faxon DP, Gersh BJ, Jacobs AK, Lepor NE, **McCullough PA**, Naqvi T, Prystowsky EN, Shah PK, Watson KE, Weber MA, Wyman A. Meeting Review: Best of the AHA Scientific Sessions 2003. Rev Cardiovasc Med 2004;5(1):26-52
- 19) **McCullough PA**. The use of contrast media in peripheral, combined, and sequential procedures. Applications in Imaging: Cardiac Interventions: Contrast Use in Renally Compromised Patients 2003;Sept:47-51
- 20) **McCullough PA**. Chapter Four: Major Risk Factors for Chronic Kidney Disease. Kidney Early Evaluation Program Annual Data Report. Am J Kid Dis 2003;42(5):S34-S41
- 21) Fonarow GC, Prystowsky EN, Lepor NE, Weyman AE, Weber MA, Watson KE, Young JJ, Kereiakes DJ, **McCullough PA**, Gersh BJ. Best of the ACC Scientific Session 2004. Rev Cardiovasc Med. 2004;5(2):104-129
- 22) Franklin BA, de Jong A, Kahn JK, **McCullough PA**. Fitness and mortality in the primary and secondary prevention of coronary artery disease: Does the effort justify the outcome? Am J Med Sports 2004;6:23-27
- 23) **McCullough PA**, Franklin BA. Atherosclerosis: Conventional risk factors and cardiac events—debunking an old myth about prevalence. Rev Cardiovasc Med. 2004;5(3):185-186
- 24) Dutcher JR, **McCullough PA**. Commentary: Glycoprotein IIb/IIIa Inhibitors in Acute Coronary Syndromes. Evidenced Based Cardiovascular Medicine 2004;8:362-363
- 25) **McCullough PA**, Faxon DP, Fonarow GC, Jacobs AK, Watson KE, Weyman AC. Meeting Review: Best of the AHA 2004. Rev Cardiovasc Med. 2005;6(1):33-46
- 26) Bashore TM, Faxon DP, Fonarow GC, Jacobs AK, Lepor NE, **McCullough PA**, Shah PK, Weber MA, Yeung AC. Best of the ACC Scientific Session 2005. Rev Cardiovasc Med. 2005 Spring;6(2):98-117
- 27) Fonarow GC, Lepor NE, **McCullough PA**, Jacobs AK, Bashore, TM, Faxon DP. Best of the AHA Scientific Session 2005. Rev Cardiovasc Med. 2006 Winter;7(1):23-36
- 28) **McCullough PA**. Clinical utility of blood natriuretic peptide levels. Business Briefing: US Cardiology 2006. Touch Briefings, Touch Cardiology. [www.touchcardiology.com](http://www.touchcardiology.com)
- 29) **McCullough PA**, Wase A. Do implantable cardioverter-defibrillators improve survival in dialysis patients after cardiac arrest? Nature Clinical Practice Nephrology 2006; 2(2): 70-71
- 30) **McCullough PA**. Ranolazine: focusing on angina pectoris. Drugs of Today 2006, 42 (3):177-183

- 31) Singh PP, Nesto RW, Faxon DP, Lepor NE, Watson KE, Jacobs AK, **McCullough PA**. Best of the AHA Scientific Sessions 2006. Rev Cardiovasc Med. 2007 Winter;8(1):25-35. PMID: 17401300
- 32) **McCullough PA**. Safety Concerns Trump Public Health Benefit in the Eyes of the FDA Cardiorenal Panel. FDA Advisory Committee Did Not Recommend Approval Of Rimonabant (ZIMULTI(R)) For Use In Obese And Overweight Patients With Associated Risks Factors. www.medicalnewstoday.com GLG NewsWatch for 6/14/2007
- 33) Friedewald VE, Goldfarb S, Laskey WK, **McCullough PA**, Roberts WC. The Editor's Roundtable: Contrast-Induced Nephropathy. Am J Cardiol. 2007 Aug 1;100(3):544-51. Epub 2007 Jun 4. PMID: 17659944
- 34) **McCullough PA**, Lepor NE. Erratum - the rosiglitazone meta-analysis. Rev Cardiovasc Med. 2007 Summer;8(3):174. PMID: 17938618
- 35) **McCullough PA**, Chronic Kidney Disease as a Cardiovascular Risk State and Considerations for the Use of Statins. The Fats of Life, Lipoproteins and Vascular Disease Division, American Association of Clinical Chemistry, Volume XXII, No 1, 9-16 Winter 2008
- 36) Lepor NE, **McCullough PA**, Jacobs AK. Best of the AHA Scientific Sessions 2007. Rev Cardiovasc Med. 2008 Winter;9(1):62-9. PMID: 18418310
- 37) Lepor NE, **McCullough PA**. Best of the ACC 2010 Scientific Session. Rev Cardiovasc Med. 2010 Summer;11(3):e153-63
- 38) Narala KR, LaLonde TA, Hassan S, **McCullough PA**. Management of Chronic Coronary Disease and Acute Coronary Syndromes in Patients with Chronic Kidney Disease. US Cardiology, 2011;8(2):123-31
- 39) Larsen T, Narala KR, **McCullough PA**. Type 4 Cardiorenal Syndrome: Myocardial Dysfunction, Fibrosis, and Heart Failure in Patients with Chronic Kidney Disease. J Clin Experiment Cardiol 2012, 3:4. <http://dx.doi.org/10.4172/2155-9880.1000186>

#### INVITED LECTURES: NATIONAL AND INTERNATIONAL FORUMS

- L1) "The Role of Triage Angiography in Acute Coronary Syndromes." Advances in Interventional Cardiology. WBH and the University of Maryland, Aruba, April, 1997.
- L2) "New Understandings of Anticoagulation During Unstable Angina." Co-Chair, American College of Cardiology 47<sup>th</sup> Annual Scientific Session, Atlanta, Georgia, March 30, 1998.



- L3) National Library of Medicine: The Emerging Health Information Infrastructure '99. "Electronic Outcomes", Washington, D.C., April 28, 1999.
- L4) Kansas City Southwest Clinical Society, 77<sup>th</sup> Annual Clinical Conference, Overland Park, Kansas: "Cardiac-Renal Risk: Incorporating Scientific Evidence into Your Practice," October 29, 1999.
- L5) The Health Forum, Best Practices, Chicago, Illinois. "Overview of Cardiovascular Health Fellowship," December 9, 1999.
- L6) AHA Scientific Conference on Existing Databases: Do They Hold Answers to Clinical Questions in Geriatric Cardiovascular Disease and Stroke? "Resource Utilization Among Congestive Heart Failure (R.E.A.C.H.) Database Overview," Washington, DC, January 27, 2000.
- L7) Health Forum Cardiovascular Health Fellowship Retreat: "Cardiovascular Risk and Health," Colorado Springs, CO, July 20, 2000.
- L8) Third Annual Center for Health Futures Advisory Board Meeting: "Congestive Heart Failure," La Jolla, CA, August 24, 2000.
- L9) Health Forum ACT Learning Collaborative Meeting: "Bridging Clinical, Community, and Population Health Strategies," St. Joseph, MO, September 20, 2000.
- L10) "Renal Disease as an Independent Risk Factor for Cardiovascular Disease in Diabetes," The Nexus of Cardiovascular and Renal Disease, Duke Clinical Research Institute, Tyson's Corner, VA, November 4, 2000.
- L11) "Atherosclerosis and Heart Disease," Winter Scientific Seminar, Missouri Society of the American College of Osteopathic Physicians, Kansas City, MO, January 27, 2001.
- L12) "Routine vs Selective Intervention in Acute Coronary Syndromes," Tenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 14, 2001.
- L13) "Intervention in the Patient with Renal Insufficiency," Tenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 16, 2001.
- L14) "The Epidemic of Cardiovascular Disease and Cardiorenal Risk," The Nexus of Cardiovascular and Renal Disease, Duke Clinical Research Institute, Tyson's Corner, VA, February 24, 2001.

- L15) “Cardiovascular Risk in Chronic Kidney Disease: Cardiorenal Risk,” Symposium on Cardio-renal Consequences of Angiotensin II, Insights from AII Blockade, NKF Spring Clinical Meeting, Orlando, FL, April 18, 2001.
- L16) Plenary Session: “Cardiac Emergencies and Cardiac Critical Care,” American College of Chest Physicians, CHEST 2001, Philadelphia, PA, November 5, 2001.
- L17) “Cardiorenal Risk,” The 33<sup>rd</sup> Annual ACC Cardiovascular Conference at Snowmass, Snowmass, Colorado, January 18, 2002.
- L18) “Epidemiology of Diabetes and Its Cardiovascular Risk” Eleventh Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 14, 2002.
- L19) “Late-Breaking Clinical Trials II: A Prospective, Blinded Trial of B-Type Natriuretic Peptide as a Diagnostic Test for the Emergency Diagnosis of Heart Failure: The Breathing Not Properly (BNP) Multinational Study,” March 19, 2002, 51<sup>st</sup> Annual Scientific Session of the American College of Cardiology, Atlanta, GA.
- L20) “Scope of Cardiovascular Complications in Patients with Kidney Disease.” Plenary Session III: Reversing Cardiovascular Complications in Patients with Kidney Disease. International Society on Hypertension in Blacks: 17<sup>th</sup> International Interdisciplinary Conference on Hypertension and Related Risk Factors in Ethnic Populations, Miami, FL, June 11, 2002.
- L21) “Epidemiology: Renal—Chronic Kidney Disease.” Atherosclerotic Vascular Disease Conference, AHA, Boston, MA, July 8, 2002.
- L22) “B-type Natriuretic Peptide Should be a Part of the Diagnostic Evaluation of Heart Failure: Implications from the Breathing Not Properly (BNP) Multinational Study” International Academy of Cardiology 8<sup>th</sup> World Congress on Heart Failure—Mechanisms and Management, Washington, DC, July 15, 2002.
- L23) “Epidemiology and Physiology of Radiocontrast Nephropathy and its Impact on Outcomes” Prevent the Event Transcatheter Therapeutics 2002 Satellite Symposium, Washington, DC, September 26, 2002.
- L24) “Calcification or ‘Phosphication’—Controversies of Calcium Phosphate Deposition: Invited Lecture: Coronary Calcification: A Predictor of Future Events or a Marker of Plaque Stability? American Society of Nephrology 2002 Annual Scientific Sessions Satellite Symposium, Philadelphia, PA, November 1, 2002.

- L25) "Renal Insufficiency and Clinical Outcome" Cardiovascular Seminar, AHA Scientific Sessions, Chicago, IL, November 18, 2002.
- L26) "Role of BNP in the Diagnosis of Heart Failure" ACC 34<sup>th</sup> Annual Cardiovascular Conference at Snowmass, CO, January 14, 2003.
- L27) "Managing the Patient with Combined Heart and Renal Failure—the Importance of Anemia" ACC 34<sup>th</sup> Annual Cardiovascular Conference at Snowmass, CO, January 14, 2003.
- L28) "The Emerging Healthcare Crisis of Obesity," Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 10, 2003.
- L29) "BNP in the Management of Heart Failure," Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 11, 2003.
- L30) "Contrast Nephropathy: Can it be Eliminated," Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 13, 2003.
- L31) "How Subtle Degrees of Renal Dysfunction Work as a Cardiac Risk Factor" First Cardiovascular Prevention Symposium: Updates and New Guidelines. AHA, Puerto Rico Chapter, San Juan, PR, March 22, 2003.
- L32) "What Is the Incremental Diagnostic Value of B-Type Natriuretic Peptide in Heart Failure?" Symposium. American College of Cardiology Scientific Sessions, 2003, Chicago, IL, April 1, 2003.
- L33) "Heart Failure Insights From Ejection Fraction" Session Co-Chair. Oral Contributions. American College of Cardiology Scientific Sessions, 2003, Chicago, IL, April 1, 2003.
- L34) "Chronic Renal Insufficiency as a Vascular Risk Factor" 14<sup>th</sup> Annual Scientific Sessions of the Society for Vascular Biology and Medicine, Chicago, IL, June 7, 2003.
- L35) "Phosphate Control and Calcification from a Cardiologist's Perspective" World Congress of Nephrology Satellite Symposium, Berlin, Germany, June 12, 2003.
- L36) "Renal Disease is a Risk Factor for Cardiovascular Disease" ACC 29<sup>th</sup> Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.
- L37) "Diagnosis of Congestive Heart Failure: Is BNP Needed in Every Case?" ACC 29<sup>th</sup> Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.
- L38) "How to Treat Combined Heart and Renal Failure with Hypertension" ACC 29<sup>th</sup> Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.

- L39) “Which Agents Prevent Contrast-Induced Nephropathy?” European Society of Cardiology 2003 Symposium: Managing Patients at Risk for Contrast-Induced Nephropathy, Vienna, Austria, September 2, 2003.
- L40) “Epidemiology of Contrast Nephropathy” Symposium Chair for “A Contrast in Risk: Radiographic Imaging in the Renally Compromised Patient”, Satellite Symposium at the Transcatheter and Therapeutics Scientific Meeting, Washington, DC, September 17, 2003.
- L41) “Update on Cardiovascular Risk Reduction in Acute Coronary Syndrome Patients” 14<sup>th</sup> Annual Great Wall International Congress of Cardiology, Beijing, China, October 10-13, 2003.
- L42) “Renal Function and Dysfunction in Coronary Arteriography” 14<sup>th</sup> Annual Great Wall International Congress of Cardiology, Beijing, China, October 10-13, 2003.
- L43) “Interventional Cardiology 2003: Bench to Bedside and Beyond, Session III: Contrast Nephropathy: Separating the Hype from the Data. Antagonist: Contrast Nephropathy Can be Prevented.” AHA Scientific Sessions 2003, November 9, 2003, Orlando, FL.
- L44) “Reversing Diabetes and Its Consequences: Pipe Dream or Reality?” The 35<sup>th</sup> Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.
- L45) “Refining the Use of B-type Natriuretic Peptide as a Diagnostic Test in Clinical Practice” The 35<sup>th</sup> Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.
- L46) “Practical Management of Obesity for the Cardiologist: The Future of Dietary Management and Bariatric Surgery” The 35<sup>th</sup> Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.
- L47) “Update from the Hypertension World: JNC 7—What’s New and How Will it Influence Practice?” Thirteenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 9-13, 2003
- L48) “The Lethal Couplet” Thirteenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 9-13, 2003
- L49) “BNP to Differentiate Between Cardiac and Extracardiac Sources of Dyspnea” 33<sup>rd</sup> Critical Care Congress, Society of Critical Care Medicine, Orlando, Florida, February 23, 2004.

- L50) “BNP Testing: Is It Ready for In-Hospital Monitoring of Therapy?” Point-of-Care Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 8, 2004.
- L51) “Role of Brain Natriuretic Peptide Levels in Diagnosis” Natriuretic Peptides Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 8, 2004.
- L52) “Renal Insufficiency and the Heart” Symposium Co-Chair, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L53) “Renal Insufficiency and Bypass Surgery” Renal Insufficiency and the Heart Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L54) “Causes and Consequences of Contrast-Induced Nephropathy and other Major Adverse Coronary Events” Contrast-Induced Nephropathy: Addressing the Needs of the High Risk Patient. A Satellite Symposium to the American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L55) “Chronic Kidney Disease as a Cardiovascular Risk Factor” 2<sup>nd</sup> Annual Scientific Symposium, AHA of Puerto Rico, San Juan, PR, March 13, 2004
- L56) “Modern use of Angiotensin Receptor Blockade in Cardiovascular Disease” 2<sup>nd</sup> Annual Scientific Symposium, AHA of Puerto Rico, San Juan, PR, March 13, 2004
- L57) “Chronic Kidney Disease and Cardiovascular Disease” Satellite Symposium: Impact of Anemia Correction in Cardiovascular Patients, American Society of Hypertension Annual Scientific Session, New York, NY, May 22, 2004.
- L58) “Contrast-Induced Nephropathy—Clinical Anomaly or Reality” Satellite Symposium: Selecting Contrast Media - Implications for Patient outcomes, EuroPCR 2004, Paris, France, May 26, 2004.
- L59) “Contrast Nephropathy” Intervention 2004. American College of Cardiology Nationwide Symposium, CNN Center, Atlanta, GA, June 2, 2004.
- L60) “Technical Issues in Selection of the BNP Assay” Satellite Symposium of the American Association of Clinical Chemistry, Los Angeles, CA, July 28, 2004.
- L61) “B-type Natriuretic Peptide in Clinical Practice” New Development in Cardiac Biomarkers for Detection and Management of Cardiovascular Diseases, EBAC Accredited Educational Programme, in conjunction with the European Society of Cardiology 2004 Annual Congress, Munich, Germany, August 30, 2004.

- L62) “Hot Topics: Renal Disease and Contrast Nephropathy—Implications for the PCI Patient” Session Moderator, Transcatheter Cardiovascular Therapeutics 2004, September 27, 2004.
- L63) “Definition and Pathophysiology of Contrast Nephropathy”, “Hot Topics: Renal Disease and Contrast Nephropathy—Implications for the PCI Patient” Transcatheter Cardiovascular Therapeutics 2004, September 27, 2004.
- L64) “Use of BNP in Clinical Practice” “Hot Topics: Clinical Utility of Biomarkers” Transcatheter Cardiovascular Therapeutics 2004, September 28, 2004.
- L65) “Contrast Media, Renal Insufficiency, and Radiocontrast Nephropathy” Introduction to Cardiac Catheterization and Indications for Percutaneous Interventions, 7<sup>th</sup> Annual Interventional Cardiology Self Assessment and Review Course, Transcatheter Cardiovascular Therapeutics 2004, September 29, 2004.
- L66) “Body Weight—Optimal Targets and How Good are We in Getting There” “Drug Combinations for Cardiovascular Disease” Duke Clinical Research Institute and U.S. Food and Drug Administration Think Tank, Washington, DC, October 8, 2004.
- L67) “Does Coronary Calcification Imply Plaque Instability?” Managing Cardiovascular and Calcium/Phosphorus Complications of CKD. Official Luncheon Symposium, Renal Week 2004, American Society of Nephrology, St. Louis, MO, October 20, 2004.
- L68) “B-type Natriuretic Peptide in the Diagnosis of Acute Heart Failure,” New Advances in the Diagnosis and Management of Acute Decompensated Heart Failure, Satellite Symposium to the AHA Scientific Sessions 2004, New Orleans, LA, November 8, 2004.
- L69) “Oportunidades para Aprimoramento no Tratamiento da Insuficiencia Cardiaca,” 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L70) “Peptideo Natriuretico Intravenoso-Perspectivas para Emprego na IC Descompensada,” 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L71) “Nesiritide (Peptideo Natriuretico Intravenoso) uma Nova Arma no Tratamento da IC Grave e Decompensada,” 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia

Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portuguese) Salvador, Bahia, Brasil, November 25-27, 2004.

- L72) "Conferencia Magna (Keynote Address): The Cardiorenal Intersection: Crossroads to the Future," 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portuguese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L73) "Practical Use of BNP in the Diagnosis and Management of Heart Failure" Medical Grand Rounds, Olathe Regional Medical Center, Olathe, KS, December 3, 2004.
- L74) "Management of Heart and Renal Failure" The 36<sup>th</sup> Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 18, 2005.
- L75) "Contrast-Induced Nephropathy" The 36<sup>th</sup> Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 18, 2005.
- L76) "Combined Heart and Kidney Failure" Cardiovascular Conference at Snowmass, Aspen, CO, January 18, 2005.
- L77) "Practice Strategies and Protocols to Reduce Renal Complications" PCI: Understanding and Managing In-Hospital Cardiac and Renal Complications, 3<sup>rd</sup> European Summit, Chantilly, France, February 11, 2005.
- L78) "HDL Cholesterol: A Powerful New Therapeutic Target" 14<sup>th</sup> (Conference Chair) Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 14, 2005.
- L79) "BNP-ology, is the Enthusiasm Warranted?" (Conference Chair) 14<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 15, 2005.
- L80) "Anticoagulation for Atrial Fibrillation: Can Warfarin be Replaced?" (Conference Chair) 14<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 18, 2005.
- L81) "New Multimarker Strategies in the Diagnosis of Acute Coronary Syndromes" Satellite Symposium to the 54<sup>th</sup> Annual American College of Cardiology Scientific Sessions 2005, Orlando, FL, March 7, 2005.
- L82) "Effect of Lowering LDL Level on Progression of Vascular Calcification" Reducing the Burden of Cardiovascular Calcification in Chronic Kidney Disease, Satellite Symposium to the Renal Physicians Association Annual Meeting, Washington, DC, March 20, 2005.

- L83) "Why Chronic Kidney disease is a CVD risk factor: Practical Implications in the Care of Cardiovascular Patients" Cardiology Grand Rounds, Clinical Science Institute, Galway, Ireland, UK, May 5, 2005.
- L84) "Clinical Application of B-type Natriuretic Peptide Levels in the Care of Cardiovascular Patients" EuroLab 2005, Glasgow, Scotland, UK, May 9, 2005.
- L85) "Anemia Is a Cardiovascular Risk Factor in Patients With Diabetic Nephropathy" The Kidney is a Key Link between Diabetes and Cardiovascular Disease: Managing Risk; Satellite Symposia to the Annual Scientific Sessions of the American Association of Clinical Endocrinology, Washington, DC, May 18, 2005.
- L86) "CIN: Emerging Trends in Identifying and Managing the At-risk Patient" Cardiovascular and Interventional Radiology Society of Europe (CIRSE) 2005, Nice, France, September 13, 2005.
- L87) "Recent Advances in Cardiac Markers and their Clinical Role in Cardiovascular Disease: Update of the BNP Consensus Panel Statements and Cost Effectiveness of BNP Testing" Turning Science into Caring Programme, Abbott European Laboratory Symposium, Wiesbaden-Delkenheim, Germany, October 14, 2005.
- L88) "Epidemiology and Prevention of Contrast Nephropathy" Transcatheter Therapeutics Annual Scientific Sessions, Washington, DC, October 19, 2005.
- L89) "BNP—What Does it All Mean?" Heart Failure 2005: What to Do for the Failing Left Ventricle" AHA Symposium in Conjunction with the 2005 Scientific Sessions, Dallas, TX, November 11, 2005.
- L90) "How to Use Cardiac Biomarkers in Heart Failure" 2005 Annual Scientific Sessions of the AHA, Dallas, TX, November 14, 2005, broadcasted nationally as "Best of Sessions 2005 on Wednesday, November 30 from 1:00-2:30PM EST"
- L91) "Chronic Kidney Disease as a Cardiovascular Risk State: Practical Management for the Cardiologist" St. Vincent's Hospital, University of British Columbia, Distinguished Speakers in Cardiovascular Medicine, 2005-2006, Vancouver, BC, Canada, December, 1, 2005.
- L92) "Anemia, Chronic Kidney Disease, and Cardiovascular Disease: Diagnosis, Prognosis, and Treatment. Nephrology Grand Rounds, University of British Columbia, St. Vincent's Hospital, Vancouver, BC, Canada, December 2, 2005.
- L93) "The Deadly Triangle of Anemia, Kidney and Heart Disease: Implications for Treatment and Management" 37<sup>th</sup> Annual Cardiovascular Conference at Snowmass, January 20, 2006, Snowmass, CO.



- L94) "Anemia in Cardiovascular Patients: Diagnosis, Prognosis, and Therapy." AHA, Prevention VIII Conference: Kidney Disease, Hypertension, and Cardiovascular Disease, January 27, 2006, Orlando, FL.
- L95) "Update on Bariatric Surgery" (Conference Chair) 15<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 17, 2006.
- L96) "Multimarker Approach to Chest Pain." Satellite Symposium to the Annual Scientific Sessions of the American College of Cardiology, March 11, 2006, Atlanta, GA.
- L97) "Preventing Contrast Nephropathy: What Works?" American College of Cardiology Annual Scientific Sessions (ACC.06 and the i2 Summit 2006), March 14, 2006, Atlanta, GA.
- L98) "Consensus statements on strategies to reduce the risk of CIN." Satellite Symposium Society for Cardiac Angiography and Intervention 29<sup>th</sup> Annual Scientific Sessions (Symposium Chair): Consensus Statements on Contrast-Induced Nephropathy (CIN): Report of an International, Multidisciplinary Panel, Chicago, IL, May 11, 2006.
- L99) "Contrast-induced nephropathy: identifying and managing the patient at risk." Euro PCR 2006 Satellite Symposium: The Underestimated Impact of Contrast Media on Patient Outcomes in PCI (Symposium Chair), Paris, France, May 27, 2006.
- L100) "Debate: Acute Decompensated Heart Failure--Biomarker will suffice" 17<sup>th</sup> Annual Scientific Sessions of the American Society of Echocardiography, Baltimore, MD, June 6, 2006.
- L101) "Heart and Kidney: Clinical Impact of Contrast Media" Update on Cardiovascular Disease 2006, Casa Di Cura Montevergine, Napoli Castel Dell'Ovo, Naples, Italy, June 19, 2006.
- L102) "Cardiovascular Disease in CKD: Where Does Calcium Fit In?" Satellite Symposia: Current Strategies for the Management of Hyperphosphatemia in End-Stage Renal Disease. European Renal Association/European Dialysis and Transplantation Association Annual Scientific Meeting, Glasgow, Scotland, July 17, 2006.
- L103) "Applications of BNP in Cardiovascular Disease" Satellite Symposia: New and Evolving Markers for Cardiovascular Disease: Myeloperoxidase (MPO) and BNP. American Association of Clinical Chemistry Annual Meeting, Chicago, IL, July 26, 2006.
- L104) "Clinical Applications of B-type Natriuretic Peptide Testing" Clinical Biochemistry Satellite Symposium: The Role of Biochemical Markers in Clinical Cardiology, Sponsored by the Australasian Association of Clinical Biochemists at the 54<sup>th</sup> Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Canberra, Australia, August 4, 2006.

- L105) "Update on BNP in the Management of Heart Failure" 54<sup>th</sup> Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Canberra, Australia, August 6, 2006.
- L106) "Update on BNP in the Management of Heart Failure" Cardiology Grand Rounds, Royal North Shore Hospital, Sydney, Australia, August 7, 2006.
- L107) "Contrast-Induced Nephropathy: Identifying and Managing the Patient at Risk" Advances in Contrast-Enhanced Imaging: Improving Outcomes and Reducing Risks of Iodinated Contrast (Chairman), a CME Satellite Symposium at the Transcatheter Therapeutics 2006 Conference, Washington, DC, October 24, 2006.
- L108) "Cardiorenal Syndrome: Etiology, Therapy, and Prognosis" Unresolved Issues in Heart Failure, Cardiovascular Seminars, 2006 Annual Scientific Sessions of the AHA, Chicago, IL, November 14, 2006
- L109) "Prevention and Management of CAD in CKD" Coronary Artery Disease in CKD: Updating the Pathophysiology and Management. Official Symposium of the American Society of Nephrology, Sand Diego, CA, November 16, 2006.
- L110) "Pharmacologic Prevention of Sudden Death in Dialysis Patients" Sudden Death in Hemodialysis Patients: Towards Prevention. American Society of Nephrology Renal Week 2007, San Diego, CA, November 17, 2006.
- L111) "Contrast Nephropathy: Finding Consensus on a Rational Approach" Radiology Grand Rounds, Hôpital Notre-Dame, University of Montreal, Canada, November 23, 2006.
- L112) "Contrast Nephropathy: Finding Consensus on a Rational Approach" Radiology Grand Rounds, Hôpital St-Luc, University of Montreal, Canada, November 23, 2006.
- L113) "Cardiorenal Syndrome and Anemia" 3rd Annual Heart Failure University (HFU) Cardiovascular Fellows Program, Los Angeles, CA, December 2, 2006.
- L114) "Implications of Age-Related Decline in Renal Function" 16<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 12, 2007.
- L115) "Using BNP in Your Practice: Pearls and Pitfalls" 16<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 15, 2007.
- L116) "Consensus Panel Findings on Contrast Nephropathy" 16<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 16, 2007.

- L117) "Measuring BNP in ACS," American College of Cardiology Scientific Sessions Satellite Symposium, "ACS & Biomarkers: From Molecules to Patient Management", New Orleans, LA, March 24, 2007.
- L118) "Anemia Correction and CVD Trials" "Ask the Experts" [clinicaltrialresults.org](http://clinicaltrialresults.org), American College of Cardiology Scientific Sessions, New Orleans, LA, March 26, 2007.
- L119) "CKD and CVD: Interaction and Risk Factors", Kidney Disease: The Unrecognized Silent Killer, NKF 2007 Scientific Meetings, Orlando, FL, April 11, 2007.
- L120) "Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol" Special Lecture for the Radiological Society of the Republic of China, National Yang-Ming University, School of Medicine, Taipei, Taiwan, May 4, 2007.
- L121) "Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol" Annual Meeting of Kaohsiung Society of Radiology, Chang Gung Memorial Hospital, Kaohsiung Hsien, Taiwan, May 5, 2007.
- L122) "Meta-Analyses of the Renal Safety of Iodixanol", Plenary Session, 15<sup>th</sup> Annual Scientific Congress of the Hong Kong College of Cardiology, Hong Kong, SAR, May 6, 2007.
- L123) "Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol" Cardiology Special Lecture, 12<sup>th</sup> Department of Cardiology, Beijing AnZhen Hospital, Beijing, Peoples Republic of China, May 7, 2007.
- L124) "Prevention of CIN during PCI in Diabetic Patients: Proposal of a Guideline" (Prevencion del Fracaso Renal Inducido por Contraste en Pacientes Diabeticos Sometidos a Intervencionismo Coronario: Propestuesta de un Protocolo Actuacion), Optimizacion del Tratamiento de Revascularizacion Percutanea en Pacientes Diabeticos, TEAM (Terapia Endovascular & Miocardica), Hospital del Mar, Barcelona, Spain, May 11, 2007.
- L125) "Acute Kidney Injury from Iodinated Contrast: Findings from an International Panel," Hungarian Society of Cardiology Annual Scientific Meeting (Magyar Kardiologusok Tarsasaga Tudomanyos Kongresszusa) Balatonfured, Hungary, May 12, 2007.
- L126) "Which Types and Which Amount of Physical Activities to Achieve and Maintain a Healthy Body Weight?" 4<sup>th</sup> Metabolic Syndrome, Type II Diabetes, and Atherosclerosis Congress (MSDA), 2007, Lisbon, Portugal, May 19, 2007.
- L127) "The Role of BNP in Patients with Shortness of Breath," Laboratory Diagnostic Technologies for Patients with Shortness of Breath, Satellite Symposium to the American Association of Clinical Chemistry Annual Scientific Meeting, San Diego, CA, July 18, 2007.

- L128) "Acute Kidney Injury after Contrast: A Serious Problem by Any Name", Hemodynamics, Electrolytes, Acute Kidney Injury: Novel Considerations in Contrast Selection, Transcatheter Cardiovascular Therapeutics 2007 Annual Meeting Satellite Symposium, Washington, DC, October 23, 2007.
- L129) "Vascular Calcification: Myth versus Reality: A Cardiologist's Perspective," Changing Paradigms: Evolving Bone and Mineral Metabolism Treatment in CKD, An American Society of Nephrology 2007 Official Symposia, San Francisco, CA, November 3, 2007.
- L130) "Contrast-Induced Nephropathy" Cardiology Grand Rounds, Auckland City Hospital, Auckland, New Zealand, November 22, 2007.
- L131) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" North Shore Hospital- Waitemata Health, Takapuna, Auckland, New Zealand, November 22, 2007.
- L132) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" Waikato Hospital, Hamilton, New Zealand, November 23, 2007.
- L133) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" Wakefield Hospital, Adelaide, Australia, November 23, 2007.
- L134) "Clinical Utilization of Cardiac Troponin and Natriuretic Peptides in ACS and CHF" Satellite Symposium to Australasian Emergency Meeting (ACEM), Gold Coast, Brisbane, Australia, November 27, 2007.
- L135) "Clinical Utilisation of Cardiac Troponin and Natriuretic Peptides in ACS and CHF: Part 1: Congestive Heart Failure, Part 2: Acute Coronary Syndrome, Part 3: Cardio-Renal Syndrome, Kuala Lumpur, Malaysia, November 29, 2007.
- L136) "Multimarker Strategies in the Management of Cardiovascular Emergencies," YMCA for Dr. H.F.Ho, Queen Elizabeth Hospital, Hong Kong, SAR, November 30, 2007.
- L137) "Practical Management of Cardiovascular Disease in Patients with Kidney Disease" Williamsburg, Virginia for the 34th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 3, 2007.
- L138) "New Cardiovascular Drugs" 17<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek" Avon, CO, February 12, 2008.
- L139) "New Insights into Atherosclerosis and Global CVD Risk," 17<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek" Avon, CO, February 12, 2008.

- L140) “Plenary 2 : Mini-Symposia: Acute Kidney Injury (AKI): Pathophysiology: Contrast Nephropathy: Epidemiology and Prognosis” 13<sup>th</sup> Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 28, 2008.
- L141) “Heart Failure and Cardio-Renal Syndrome 1: Pathophysiology” 13<sup>th</sup> Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 29, 2008.
- L142) “Hemodynamic Monitoring: Principles and Practice” 13<sup>th</sup> Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 29, 2008.
- L143) “Cardiovascular Calcification, Potential Strategies in Minimizing Cardiovascular Disease in CKD”, Satellite Symposia at the 57th ACC Annual Scientific Sessions, Chicago, IL, March 30, 2008.
- L144) “Emergency Evaluation of Chest Pain: Building a Better Mousetrap” Olathe Medical Center Annual Heartbeat Symposium, Olathe, KS, April 4, 2007.
- L145) “Interventions and CVD Interactions in Diabetics with Proteinuria” Satellite Symposia (Chairman) Chronic Kidney Disease Interventions: Improving CKD and CVD Outcomes” NKF Clinical Meeting 2008, Dallas, TX, April 5, 2008.
- L146) “Shifting Paradigms in PCI: Controversial Issues in High-Risk Patients” International Symposium (Chairman), Barcelona, Spain, April 10, 2008.
- L147) “Success in Identifying Heart Failure” Satellite Symposia “Managing CVD: What Every Internist Needs to Know” Annual Scientific Sessions of the American College of Physicians, Washington, DC, May 14, 2008.
- L148) “Cardiovascular Calcification in Patients with Chronic Kidney Disease” Satellite Symposia “Cardiovascular Disease in CKD: Strategies for Minimizing Mortality” Annual Scientific Sessions of the American College of Physicians, Washington, DC, May 15, 2008.
- L149) “Clinical Trial Designs in Contrast Induced Acute Kidney Injury,” Third Annual AKIN Conference on Research Initiatives in AKI, Bethesda, MD, June 10-12, 2008.
- L150) “Neutrophil Gelatinase Associated Lipocalin (NGAL)” on Behalf of Inverness Medical, Third Annual AKIN Conference on Research Initiatives in AKI, Bethesda, MD, June 10-12, 2008.
- L151) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Radiological Society of Taiwan, Taipei, Taiwan, July 17, 2008.

- L152) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Radiological Society of Taiwan, Kaushiung, Taiwan, July 18, 2008.
- L153) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Contrast-Induced Nephropathy Symposium, Professor Yalin Han, MD, Chairwoman of Military Cardiology Society of China, Shenyang, China, July 20, 2008.
- L154) Cardiology Teaching Rounds, with Professor Runlin Gao, Beijing Fuwai Hospital, Beijing, China, July 21, 2008.
- L155) Cardiology Teaching Rounds, with Professor Yujie Zhou, Beijing Anzhen Hospital, Beijing, China, July 21, 2008.
- L156) Cardiology Teaching Rounds with Professor Yundai Chen, General Hospital of Military, Peoples Liberation Army, Beijing, China, July 21, 2008.
- L157) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Contrast-Induced Nephropathy Symposium, Contrast-Induced Nephropathy Symposium, Professor Runlin Gao, Chairman of Chinese Cardiology Society, Beijing, China, July 22, 2008.K
- L158) “New Insights on Accelerated Vascular Calcification in Patients with Kidney Disease” Plenary Session: Ischemic Heart Disease/Risk Assessment/New Treatment Strategies” International Academy of Cardiology 14<sup>th</sup> World Congress on Heart Disease, Annual Scientific Sessions, Toronto, Ontario, Canada, July 29, 2008.
- L159) “Cardiorenal Syndrome: the Diagnostic Value of Brain Natriuretic Peptide and Neutrophil Gelatinase Associated-Lipocalin in Interventional Cardiology,” Cardiovascular Biomarkers which Enhance Clinical Practice in Emergency Medicine and Cardiology: the State of the Art for Markers of Necrosis, Hemodynamic Stress and Cardiorenal Syndrome, Satellite Symposium to the European Society of Cardiology Annual Scientific Sessions, Munich, Germany, September 2, 2008.
- L160) “Diagnosis and Management of Diabetes, Hypertension, and Acute Dyspnea,” 2008 CVD and CKD Intersection Consensus Conference, Chicago, IL, September 26, 2008.
- L161) “Chronic Kidney Disease and Contrast Nephropathy (Contrast-Induced Acute Kidney Injury [CI-AKI]): From Prognostic Scores to the Latest Preventive Strategies” Complex Patients, Complex Lesions, 20<sup>th</sup> Annual Transcatheter Therapeutics Conference, Washington, DC, October 14, 2008.

- L162) “Chronic Kidney Disease: a CHD Risk Equivalent” 2008 Cardiometabolic Health Congress, Harvard Medical School, Boston, MA, October 19, 2008.
- L163) “Hyperphosphatemia as a Cardiovascular Risk Factor” Nephrology Conference, The Ottawa Hospital, Ottawa, Ontario, Canada, October 28, 2008.
- L164) “Cardiovascular Calcification in Patients with Chronic Kidney Disease” Nephrology Division-Wide Conference, The Ottawa Hospital, Ottawa, Ontario, Canada, October 28, 2008.
- L165) “Hyperphosphatemia and CVD Risk,” Management of Hyperphosphatemia Across the Continuum of CKD, American Society of Nephrology Satellite Symposium, Philadelphia, PA, November 8, 2008.
- L166) “Cardiovascular Calcification” Nephrology Grand Rounds, Humber River Regional Hospital, Toronto, Ontario, Canada, December 9, 2009.
- L167) “Cardiovascular Calcification” Nephrology Grand Rounds, St. Joseph’s Hospital, Toronto, Ontario, Canada, December 9, 2009.
- L168) “Critical Concepts in the Progression of Atherosclerosis” 18<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 9, 2009.
- L169) “New Molecular Targets in the Treatment of Atherosclerosis” 18<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 9, 2009.
- L170) “Sudden Cardiac Death in Patients with Renal Disease” 18<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 12, 2009.
- L171) “Cardiovascular and Renal Implications of Contrast Media” Radiology Grand Rounds, The Kingston Hospital, Queens University School of Medicine, Kingston, Ontario, Canada, March 3, 2009.
- L172) “Recent Evidence into the Pathophysiology of Cardiovascular Calcification in Chronic Kidney Disease,” NKF Symposium 2009 Spring Clinical Meetings, “Exploring Recent Evidence Related to Cardiovascular Calcification and Chronic Kidney Disease”, Nashville, TN, March 27, 2009.
- L173) “Chronic Kidney Disease: Implications For Patients With CAD” Managing the High Risk Coronary Patient, I2 Summit, American College of Cardiology Annual Scientific Sessions, Orlando, FL, March 30, 2009.
- L174) “BNP and Cardiovascular Disease” Cardiology Grand Rounds, Hospital PróCardíaco, Rio de Janeiro, Brasil, April 14, 2009.

- L175) “Acute Cardiac Effects of Marathon Running” Special Guest Lecture, CLINIMEX - Clínica de Medicina do Exercício, Rio de Janeiro, Brasil, April 14, 2009.
- L176) “Interface entre doença renal e cardiovascular: o rim mata o coração ou o coração mata o rim? Da para evitar esse extermínio?” Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L177) “A angiotomografia coronária deve ser empregada em todo paciente com doença torácica de risco baixo-moderado?” Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L178) “Conferencia Internacional: Oportunidades para aperfeiçoar o tratamento da insuficiência cardíaca avançada/descompensada” Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L179) “Invasive Versus Non-invasive Coronary Angiography: Guidelines for Achieving Optimal Outcomes” Annual Scientific Sessions of the Society for Cardiac Angiography and Intervention, Las Vegas, NV, May 7, 2009.
- L180) “Cardiorenal Syndrome” Moderator, American Society of Nephrology Annual Scientific Sessions, Renal Week 2009, San Diego, CA, October 29, 2009.
- L181) “The Creatinine Changes: Now What?” Cardiorenal Syndromes, Annual Scientific Sessions, AHA, Orlando, FL, November 16, 2009.
- L182) “Cardiorenal Syndromes: Strategies for Success” 19<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L183) “Cardiomyopathy of Obesity” 19<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L184) “Why Does Atherosclerosis Calcify: Clinical Implications” 19<sup>th</sup> Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L185) “Prevention Trials in AKI” 15<sup>th</sup> International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 24, 2010.
- L186) “Cardiology Trials” 15<sup>th</sup> International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 24, 2010.



- L187) “Contrast Nephropathy: Prevention and Management” 15<sup>th</sup> International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 26, 2010.
- L188) “Lipoprotein-Associated Phospholipase A2 (Control#: 4599)” Symposium: Do New Markers & Genomics Enhance Risk Prediction? Annual Scientific Sessions of the ACC, Atlanta, GA, March 15, 2010.
- L189) “New Insights Into the Role of Heart-Kidney Interactions in the Cardiorenal Syndrome” (Control#: 16660) Symposium: Recognition and Management of the Cardiorenal Syndrome in Advanced Heart Failure, Annual Scientific Sessions of the American College of Cardiology, Atlanta, GA, March 15, 2010.
- L190) “B-Type Natriuretic Peptides in Cardiorenal Syndromes” 5<sup>th</sup> Annual Turning Science into Caring Symposium, Wiesbaden, Germany, March 25, 2010.
- L191) “CKD and CVD Interaction in KEEP” KEEP Update: the Common Soil of CKD and CVD, NKF Spring Clinical Meetings, Orlando, FL, April 16, 2010.
- L192) “Cardio Renal Intersection, Crossroads to the Future - Novel Coronary Risk Factors” NKF Spring Clinical Meetings, Orlando, FL, April 16, 2010.
- L193) “Diagnostic Workup of suspected heart disease in CKD” NKF Spring Clinical Meetings, Orlando, FL, April 17, 2010.
- L194) “BNP: Beyond Heart Failure (BNP más allá de la insuficiencia cardiaca)”, XIX Chile 2010 Congreso Latinoamericano de Bioquímica Clínica, XVI Congreso Chileno de Química Clínica, Biomarcadores en Enfermedades Cardio-Renales COLABIOCLI 2010, Santiago del Chile, April 21, 2010.
- L195) “Prevention of Cardiorenal Syndromes”, 19<sup>th</sup> International Vicenza Course on Critical Care Nephrology, Vicenza, Italy, June 10, 2010.
- L196) “La Pandemia de la Obesidad: Que podemos hacer aquí y ahora” “Importancia de la Evaluación previa y el monitoreo cardiaco en rehabilitación cardiaca” “Ergoespirometria: Diagnostico e implicaciones terapéuticas,” Sociedad Colombiana de Cardiología y Cirugía Cardiovascular Fundación Colombiana del Corazón Comité de Prevención y Rehabilitación Cardiovascular Día Mundial del Corazón, Santa Marta, Colombia, September 25, 2010.
- L197) “CKD: A CHD Equivalent” 2010 Cardiometabolic Health Congress (CMHC), Boston MA, October 22, 2010.
- L198) “Treatment Disparities in Patients with Acute Coronary Syndromes and Kidney Disease” AHA Scientific Sessions 2010, Chicago, IL, November 13, 2010.

- L199) “Integration of Advanced Information Technology into Nephrology Practice” Moderator, at the American Society of Nephrology, Denver, CO, November 21, 2010.
- L200) “Cardiorenal Syndromes” Special Lecture, Mansoura Nephrology and Urology Center, Mansoura, Egypt, November 29, 2010.
- L201) “Neutrophil Gelatinase Associated Lipocalin.” Al Mokhtabar Laboratories, Cairo, Egypt, December 1, 2010.
- L202) “Cardiorenal Syndromes” ACC Williamsburg Conference, Williamsburg, VA, December 5, 2010.
- L203) “Micronutrients and Cardiorenal Disease: Insights into Novel Assessments and Treatment” 13<sup>th</sup> International Conference on Dialysis, Advances in CKD 2011, Miami, FL, January 26, 2011.
- L204) “Managing High Risk Patients in a i2 Spotlight entitled Cardiac Care Team Spotlight: Approaches for CAD Management” American College of Cardiology 60th Annual Scientific Session and i2 Summit 2011, April 2, 2011, in New Orleans, LA.
- L205) “Lipid Management in Patients with Renal Insufficiency in a ACC Symposium entitled Lipid Management in Special Populations” American College of Cardiology 60th Annual Scientific Session and i2 Summit 2011, April 2, 2011, in New Orleans, LA.
- L206) “KEEP Symposium 2011: KEEP A New Longitudinal Dimension for a New Decade” NKF Spring Clinical Meetings, April 29, 2011, Las Vegas, NV.
- L207) “Disparities of Treatment for ACS and Heart Failure in CKD Patients” 20<sup>th</sup> International Vicenza Course on Hemodialysis and CKD, June 8, 2011, Vicenza, Italy.
- L208) “AKI: Can We Prevent It?” 20<sup>th</sup> International Vicenza Course on Hemodialysis and CKD, June 9, 2011, Vicenza, Italy.
- L209) “Measuring Natriuretic Peptides in Acute Coronary Syndromes” American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, July 26, 2011.
- L210) “Biomarkers in Stable Angina and Microvascular Dysfunction”, Emerging Role of Biomarkers in Cardiorenal Syndrome and Acute Coronary Syndrome: Diagnosis Stratification and Management, Siena Italy, September 2, 2011.
- L211) “Cardiorenal Syndrome Definition and Scope: Cardiac Perspective” 28<sup>th</sup> National Congress of Nephrology, Hypertension, Dialysis, and Transplantation, Antalya, Turkey, October 20, 2011.

- L212) “Targeted Hypertension Management for Optimal Cardiorenal Outcomes” 28<sup>th</sup> National Congress of Nephrology, Hypertension, Dialysis, and Transplantation, Antalya, Turkey, October 22, 2011.
- L213) “The KEEP Experience” 3rd International Symposium on Albuminuria – The Prognostic Role of Albuminuria: Impact on Kidney and Cardiovascular Outcomes, Groningen, Netherlands, December 1, 2011.
- L214) “Cardiorenal Syndromes” Cardiology Guest Lecture, University of Chicago, Pritzker School of Medicine, Chicago, IL, January 18, 2012.
- L215) “Diagnosis of Cardiovascular Disease in CKD” 14th international conference on dialysis, advances in CKD 2012, Palm, Harbor, FL, January 26, 2012
- L216) “Acute Kidney Injury Guidelines” KDIGO Clinical Practice Conference: KDIGO Guidelines on Acute Kidney Injury, Glomerulonephritis, and Anemia, Shanghai, China, February 5, 2012
- L217) “Galectin-3: A Novel Blood Test for the Evaluation and Management of Heart Failure” Cardiology Grand Rounds, University of Arkansas for Medical Sciences, Little Rock, Arkansas, February 8, 2012
- L218) “Contrast-Induced Acute Kidney Injury” 17<sup>th</sup> Annual CRRT 2012, Acute Kidney Injury Controversies, Challenges, and Solutions, San Diego, CA February 15, 2012
- L219) “Recent Trials in the Prevention of Contrast-Induced AKI: Importance of Emerging Biomarkers” 17<sup>th</sup> Annual CRRT 2012, Acute Kidney Injury Controversies, Challenges, and Solutions, San Diego, CA February 17, 2012
- L220) “Role of Galectin-3 in Heart Failure” Joint American Association of Cardiologists of Indian Origin and ACC Dinner Symposium, American College of Cardiology Scientific Sessions 2012, Chicago, IL, March 25, 2012
- L221) “Bariatric Surgery: A Cure for Obesity?” American College of Cardiology Scientific Sessions 2012, Joint Symposium of the American Association of Clinical Endocrinologists and the ACC: Cardiologists as Endocrinologists – Emerging Management of the Diabetic Patient, Chicago, IL, March 26, 2012
- L222) “Practical Management of Obesity for the Cardiologist” 48<sup>th</sup> Annual Robert M. Jeresaty Cardiovascular Symposium, Hartford, CT, May 3, 2012
- L223) “Prevention of Cardiovascular Events: Beyond Statins” 48<sup>th</sup> Annual Robert M. Jeresaty Cardiovascular Symposium, Hartford, CT, May 3, 2012

- L224) "Contrast Media and Patient Safety: The Clinical Impact" Swiss Congress of Radiology, Zurich, Switzerland, May 31, 2012
- L225) "Importance of Methodological Rigor in CI-AKI Meta-Analyses" 48<sup>th</sup> Congresso Nazionale Italian Society of Radiology (SIRM), Torino, Italy, June 2, 2012
- L226) "Chronic Kidney Disease and Heart Failure" 2012 Cardiometabolic Health Congress (CMHC) Boston, MA, October 12, 2012
- L227) "Chronic Kidney Disease and Acute Myocardial Infarction" CKD a Recipe for CVD Disaster, Kidney Week, American Society of Nephrology, San Diego, CA, October 30, 2012
- L228) "Epidemiology and Pathophysiology of Coronary Artery Disease in Chronic Kidney Disease" Scientific Sessions 2012, AHA, Los Angeles, CA, November 5, 2012
- L229) "The Cardiorenal Syndrome" Acute Dialysis Quality Initiative 11: Cardiorenal Syndromes, Venice, Italy, November 30, 2012
- L230) "Cardiorenal Syndromes" Cardiology Grand Rounds, University of Missouri School of Medicine, Columbia, MO, December 20, 2012
- L231) "Diagnosis and Management of Coronary Disease in Patients with Kidney Disease" Internal Medicine Grand Rounds, University of Missouri School of Medicine, Columbia, MO, December 20, 2012
- L232) "The Hypertension Epidemic: Are We Any Further Ahead?" 22nd Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 9-16, 2013
- L233) "Cardiorenal Syndromes: The Cardiac Perspective" Inaugural Cardio Renal Society of America (CRSA), 14th Annual Southwest Nephrology Conference (SWNC), Chandler, AZ, March 2, 2013
- L234) "Managing Hyponatremia in Cardiorenal Syndromes" Satellite Symposia to the NKF Spring Clinical Meetings, Orlando, FL, April 3, 2013
- L235) "Session Title: Debate: To Screen or Not to Screen for CKD--PRO? NKF Spring Clinical Meetings, Orlando, FL, April 5, 2013
- L236) "Galectin-3: A Novel Biomarker for the Assessment and Management of Heart Failure" Heart Failure Conference, University of Pittsburgh Medical Center, Pittsburgh, PA, May 28, 2013

- L237) “The Kidney in Heart Failure” 31st International Vicenza Course on Critical Care Nephrology, June 11-14, 2013, Vicenza, Italy
- L238) “Contrast-Induced Acute Kidney Injury” 31st International Vicenza Course on Critical Care Nephrology, June 11-14, 2013, Vicenza, Italy
- L239) “Novel Biomarkers in the Prognosis and Management of Heart Failure” BUMC Medicine Grand Rounds, August 20, 2013, Dallas, TX
- L240) “Cardiorenal Syndromes: New Insights into Combined Heart and Kidney Failure” Cardiology Grand Rounds, University of Virginia Medical Center, August 26, 2013, Charlottesville, VA
- L241) “Major Advances in the Treatment of Atherosclerosis: New Options for Patients with Familial Hypercholesterolemia and Those Intolerant to Conventional Lipid Lowering Therapy” Cardiology Update, University of Missouri School of Medicine, September 14, Columbia, MO
- L242) “Keynote Address: Recent Advances in the Assessment of Acute Kidney Injury with Neutrophil Gelatinase Associated Lipocalin” 47th Brazilian Congress of Clinical Pathology and Laboratory Medicine, September 23, 2013, Sao Paulo, Brazil.
- L243) “Advancements in Cardiometabolic Risk Assessment: Expert Analysis of Recent Evidence and Outcomes” 2013 Cardiometabolic Health Congress, October 2, 2013, Boston, MA.
- L244) “Keynote Address: Cardiorenal Syndromes: New Insights to Patients with Combined Heart and Kidney Failure” Fourth Italian Great Network Congress, Focus on Innovation and Translational Research in Emergency Medicine, Sapienza Universita di Roma, October 14-18, 2013, Rome, Italy.
- L245) “Practical Experience with Galectin-3” Fourth Italian Great Network Congress, Focus on Innovation and Translational Research in Emergency Medicine, Sapienza Universita di Roma, October 14-18, 2013, Rome, Italy.
- L246) “Using Novel Biomarkers in the Assessment and Management of Heart Failure” Bon Secours Cardiovascular Conference, October 25, 2013, Williamsburg, VA
- L247) “Detection and Consequences of Iron Deficiency Anemia in CKD Patients” Session Title: The Role of Iron in the Optimization of Anemia Management in CKD, American Society of Nephrology, Kidney Week, November 9, 2013, Atlanta, GA
- L248) “Bench to Bedside: What Happens to the Physiologic Systems After an Acute Bout of High Intensity/Volume Exercise?” Session Title: Cardiovascular Seminar entitled Potential

Cardiotoxicity of Extreme Endurance Exercise, Annual Scientific Sessions of the AHA, November, 20, 2013, Dallas, TX.

- L249) “Atrasentan for the treatment of diabetic nephropathy: how to control the risk of heart failure?” Session Title: “Lessons Learned from First Post FDA Guidance Case Studies of Diabetes CV Outcomes Trials, 10th Global CardioVascular Clinical Trialists (CVCT) Forum, December 7, 2013, Paris, France.
  
- L250) “Reflection: Biomarker-based modeling tools: safer drugs and faster development?” A workshop initiated by the TI-Pharma Escher project for academia, industry, and the European Medicines Agency, January 24, 2014, Amsterdam, the Netherlands.
  
- L251) “Focus on lipids: HDL and Its Associated Lipoproteins in Cardiac and Renal Disease” Changing Paradigms in Acute Kidney Injury: From Mechanisms to Management Sponsored by UAB/UCSD O’Brien Center for AKI Research, 19<sup>th</sup> International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
  
- L252) “Cardiac and Renal Fibrosis in Chronic Cardiorenal Syndromes” Targeting Recovery from Acute Kidney Injury:, 19<sup>th</sup> International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
  
- L253) “Statins for AKI: Friend or Foe” Controversies in Critical Care Nephrology:, 19<sup>th</sup> International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
  
- L254) “Managing Heart Failure and Cardiorenal Syndrome” Workshop, 19<sup>th</sup> International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
  
- L255) “ST2: A Novel Biomarker in the Assessment and Management of Heart Failure” 2<sup>nd</sup> Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.
  
- L256) “Cardiac and Renal Fibrosis in Chronic Cardiorenal Syndromes” 2<sup>nd</sup> Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.
  
- L257) “New Approaches to the Management of Cardiorenal Syndromes” 2<sup>nd</sup> Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.

- L258) “My New Favorite Biomarker: Galectin-3” 2014 UCSD Biomarkers in Clinical Practice Symposium, La Jolla, CA, April 5, 2014.
- L259) “Changing Profile of Chronic Hyperkalemia” NKF Spring Clinical Meetings, Las Vegas, NV, April 24, 2014.
- L260) “The Next Generation of Screening for Kidney Disease” NKF Spring Clinical Meetings, Las Vegas, NV, April 25, 2014.
- L261) “Cardiorenal Syndromes” Cardiology, Diabetes & Nephrology at the Limits, Royal College of Physicians, London, UK, April 26, 2014.
- L262) “Acute Cardiorenal Syndromes: New Insights into Combined Heart and Kidney Failure” Actual Problems of Extracorporeal Blood Purification in Intensive Care, Russian Scientific Society of Specialists in Extracorporeal Blood Purification, Bakoulev Scientific Center for Cardiovascular Surgery of the Russian Academy of Medical Sciences, Moscow, Russia, May 22, 2014.
- L263) “Fibrosis in the Heart and Kidneys in the Pathogenesis of Chronic Cardiorenal Syndromes” Actual Problems of Extracorporeal Blood Purification in Intensive Care, Russian Scientific Society of Specialists in Extracorporeal Blood Purification, Bakoulev Scientific Center for Cardiovascular Surgery of the Russian Academy of Medical Sciences, Moscow, Russia, May 23, 2014.
- L264) “Hyperkalemia: Old Foe with New Faces” 51<sup>st</sup> European Renal Association – European Dialysis and Transplantation Association Congress, Amsterdam, the Netherlands, June 2, 2014.
- L265) “Contrast Induced Complications in the Cath Lab” Transcatheter Cardiovascular Therapeutics (TCT) Russia, Moscow, Russia, June 16, 2014.
- L266) “The RAASi Debate: Should RAAS Continue with a Declining GFR?: Will the Path be Clearer” Co-Chair, European Society of Cardiology, Barcelona, Spain, August 31, 2014.
- L267) “Novel Markers of Acute and Chronic Kidney Injury,” Where Inflammation Meets Lipids: Broad Based Strategies for Risk Reduction, Cleveland Heart Labs, Cleveland, OH, September 12, 2014.
- L268) “Advances in the Understanding of Acute and Chronic Cardiorenal Syndromes: Pathophysiological Crosstalk of Multiple Metabolic and Neurohormonal Systems” 41<sup>st</sup> Williamsburg Cardiovascular Conference, Williamsburg, VA, December 7, 2014.
- L269) “CHADS, CHADS-VASc, HAS-BLED, What Does it Mean and How Do We Use It? Atrial Fibrillation Session, Dallas-Leipzig Valve 2104, Dallas, TX, December 11, 2014.

- L270) "Soup-to-Nuts Renal Failure: Caring for the Patient with Kidney Injury" Society of Critical Care Medicine, Phoenix, AZ, January 19, 2015.
- L271) "RAASi Optimization in Heart Failure" 2<sup>nd</sup> Annual Cardiorenal Society of America Meeting, Phoenix, AS, February 28, 2015.
- L272) "Cardiac Surgery Associated Acute Kidney Injury" Association of Physician Assistants in Cardiac Surgery, Las Vegas, NV, March 3, 2015.
- L273) "The Potassium Challenge in CKD: Managing Acute and Chronic Hyperkalemia: Novel Polymer-Based Potassium Binders: Clinical Evidence" NKF Spring Clinical Meetings, March 27, 2015.
- L274) "KEEP Healthy: Insights into CKD Care" NKF Spring Clinical Meetings, March 28, 2015.
- L275) "The Heart of the Matter" NKF Spring Clinical Meetings, March 28, 2015.
- L276) "Literature Review: CVD" NKF Spring Clinical Meetings, March 28, 2015.
- L277) "Biomarkers of Kidney and Heart Injury in Cardiorenal Syndrome" Cardioneurology 2015, Rome, Italy, April 16, 2015.
- L278) "AKI after Acute Myocardial Infarction: Contrast, Organ Crosstalk and Complications" 33rd Vicenza Course on Critical Care Nephrology in Vicenza, Italy, June 9-12, 2015.
- L279) "A New Mechanism of Action for Addressing Hyperkalemia: New Data on Non-Polymer Hyperkalemia Therapies" 33rd Vicenza Course on Critical Care Nephrology in Vicenza, Italy, June 9-12, 2015.
- L280) "Lp-PLA2 as a marker of Vascular Inflammation and CHD Risk Assessment" Symposium: Advances in Laboratory Testing for Coronary Heart Disease; The New PLAC Test for Lp-PLA2 Activity, American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, June 29, 2015.
- L281) "Galectin-3 in the Prognosis and Management of Heart Failure" American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, June 29, 2015.
- L282) "Cardio-Renal Syndrome and Clinical Implications" AKI from Pathophysiology to Clinical Implications, Global Research on Acute Conditions Team (GREAT) Annual Meeting, Rome, Italy, September 5, 2015.
- L283) "Lp-PLA2 and Testing for Primary Prevention Risk Assessment" 2015 Cardiometabolic Health Congress, Harvard Medical School, Boston, MA, October 22, 2015.



- L284) “Heart and Kidney: a Dangerous Liaison” Comorbidities in Heart Failure: From Guidelines to Clinical Practice, 775 Anniversary University of Sienna, Sienna, Italy, October 29, 2015.
- L285) “Role of BNP, Pro-BNP, and Elevated Left Ventricular Mass in Cardiorenal Syndrome” American Society of Nephrology Kidney Week, San Diego, CA, November 6, 2015.
- L286) “How to Use Urine Thromboxane B2 to Select and Monitor Aspirin Therapy” Moderator, Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L287) “Putting it All Together: How to Use Urine 11-Dehydrothromboxane B2 In Clinical Practice” Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L288) “Neurogenic Orthostatic Hypotension” Moderator, Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L289) “Cardiac Cachexia” Managing Disease Related Lean Body Mass Loss Through Clinical and Nutritional Interventions, The Sackler Institute for Nutrition Science The New York Academy of Sciences, New York, NY, December 4, 2015.
- L290) “The Devastating Consequences of Systemic Hypertension and What To Do About It?” 42<sup>st</sup> Williamsburg Cardiovascular Conference, Williamsburg, VA, December 6-8, 2015.
- L291) “The Impact and Management of Malnutrition in Patients with Heart Failure” Heart Failure University 2015, Conference Co-Chair, Los Angeles, CA, December 11-13, 2015.
- L292) “Acute and Chronic Cardiovascular Effects of Hyperkalemia: New Insights Into Prevention and Clinical Management” Heart Failure University 2015, Conference Co-Chair, Los Angeles, CA, December 11-13, 2015.
- L293) “Lipoic Acid in the Prevention of Acute Kidney Injury” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.
- L294) “Novel Approaches for Recognition and Management of Life Threatening Complications of AKI and CKD” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.
- L295) “Making Iodinated Contrast Less Nephrotoxic with Cyclodextrin” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.

- L296) “Cardiorenal Syndrome” 4<sup>th</sup> Annual Cardio-Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ, March 13, 2016.
- L297) “Cardiorenal Syndromes Identification: Prevention and Management of CI-AKI” China Interventional Therapeutics (CIT), Beijing, Shanghai Zhong Shan Hospital, Shanghai, The 2nd Affiliated Hospital of Zhejiang University, Hangzhou, Xi Jing Hospital, Xi’an, Nanjing 1st Hospital, Nanjing, Peoples Republic of China, March 14-21, 2016.
- L298) “Cardiorenal Syndromes” Keynote Address, Inaugural Cardio-Renal Connections Meeting, San Antonio, TX , April 16, 2016.
- L299) “Galectin-3 in the Prognosis and Management of Heart Failure” American Association of Clinical Chemistry Annual Scientific Meeting, Philadelphia, PA, August 1, 2016.
- L300) Hemodialysis University, “Is It Heart Failure or Fluid Overload?”, Chicago, IL, September 10, 2016.
- L301) “Novel Agents for the Treatment of Hyperkalemia” Heart Failure Society of America Annual Scientific Meeting, Orlando, FL, September 18, 2016.
- L302) Symposium “Hyperkalemia in the Emergency Department: Updates on the Current Management of a Complex Condition.” “Novel Agents for the Prevention and Treatment of Hyperkalemia” American College of Emergency Physicians Scientific Assembly, Las Vegas, NV, October 14, 2016
- L303) Moderator “CVD in Patients with CKD: Update from the CRIC Study” Annual Scientific Sessions of the AHA, New Orleans, LA, November 13, 2016
- L304) Program Chairman “A Night at the Museum: Inaugural Symposium of the Cardiorenal Society of America Transcending the Dinosaurs: Guiding AKI Prevention using next-gen biomarkers: Real World Experiences from modern practices” satellite Symposium at American Society of Nephrology Kidney Week, Field Museum, Chicago, IL, November 18, 2016
- L305) “Pathobiologic Systems Involved in Cardiorenal Disease” 43<sup>rd</sup> Williamsburg Cardiovascular Conference, Williamsburg, VA, December 3-5, 2016
- L306) “Cardiac Cachexia” Heart Failure University, MedReviews LLC, Los Angeles, CA, December 10, 2016
- L307) “Is There a Role for Bariatric Surgery in Heart Failure Patients with Obesity?” Scientific Sessions 2017, American College of Cardiology , Washington, DC, March 18, 2017

- L308) “Vascular and Cardiac Hypertrophy in Fabry Disease” 5<sup>th</sup> Annual Fabry Nephropathy Update, Mexico City, Mexico, April 26, 2017
- L309) “Introduction to Cardiorenal Medicine” Cardiorenal University, Anaheim, CA, May 18, 2017
- L310) “Sudden Death in End-Stage Renal Disease” Cardiorenal University, Anaheim, CA, May 18, 2017
- L311) “Cardiorenal Syndromes and Heart Failure” Conference Chair, Disease Global Outcomes (KDIGO) Controversies Conference on Heart Failure in Chronic Kidney Disease, Athens, Greece, May 25-28, 2017
- L312) “Vadadustat Does Not Prolong Corrected QT Interval In A Thorough QTC Study In Healthy Subjects” 54th ERA-EDTA Congress, Madrid, Spain, June 3-6, 2017
- L313) “Cardiorenal Syndromes” 1<sup>st</sup> Annual Heart iN Diabetes: Where the Heart, Kidney, and Diabetes Meet in Clinical Practice, Philadelphia, PA, July 14-16, 2017
- L314) “Cardiovascular Disease in Patients with Chronic Kidney Disease: A Serious Link” TOP 2017--Target Organ Protection Conference, Bangalore, India, August 11, 2017
- L315) “Statin Therapy to Prevent Onset and Progression of Vascular Disease” TOP 2017--Target Organ Protection Conference, Bangalore, India, August 11, 2017
- L316) “Keynote Address: Cardiorenal Society of America” 5<sup>th</sup> Annual Scientific Meeting of the Cardiorenal Society of America, Phoenix, AZ, October 6, 2017
- L317) “Cardiovascular Benefits of Home Hemodialysis” Addressing Unmet Needs in Dialysis: Cardiovascular Care and Volume Control Symposium, Kidney Week 2017 American Society of Nephrology, New Orleans, LA, November 4, 2017
- L318) “CIEDs in ESRD Patients: What Are the Long-Term Data?” Kidney Week 2017 American Society of Nephrology, New Orleans, LA, November 4, 2017
- L319) “Cardiovascular Seminar Cardiorenal Syndrome: Who hurts who?” AHA Scientific Sessions 2017, Anaheim, CA, November 14, 2017
- L320) “Cardiac and Renal Fibrosis in CRS” AHA Scientific Sessions 2017, Anaheim, CA, November 14, 2017
- L321) Chair, Inaugural Cardiometabolic University and Nutrition Academy “The Skinny on Weight Loss: Practical Considerations for the Cardiovascular Specialist” MedReviews, Westlake, TX, December 1-3, 2017

- L322) “Clinical Laboratory Advancements in Cardiometabolic Disease: Screening, Diagnosis, Prognosis, and Management” 44th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 4, 2017
- L323) “The Skinny on Weight Loss: Practical Approaches for the Cardiovascular Specialist” Cardiometabolic University 2017, Conference Chair, Dallas, TX , December 1-3, 2017
- L324) “Diagnosis, Evaluation, and Role of Biomarkers in Heart Failure” Heart Failure University 2017, Conference Co-Chair, Los Angeles, CA, December 10-12, 2017
- L325) “Biomarkers of Kidney Dysfunction and Cardiorenal Syndrome” University of California at San Diego 14th Annual Biomarkers in Heart Failure and Acute Coronary Syndromes: Diagnosis, Treatment and Devices, San Diego, CA, March 2, 2018
- L326) “What do I do to Prevent Contrast Induced Renal Injury” 23rd International Conference on Continuous Renal Replacement Therapies CRRT 2018, San Diego, CA, March 8, 2018
- L327) “AKI in the patient with Cancer” 23rd International Conference on Continuous Renal Replacement Therapies CRRT 2018, San Diego, CA, March 8, 2018.
- L328) “CKD-Related Anemia and Cardiac Complications” NKF Spring Clinical Meetings, Austin, TX April 14, 2018
- L329) “Principles of Distributive Shock” Cardiorenal Society of America National Grand Rounds Series, Boston, MA, April 30, 2018
- L330) “Biomarkers with More Muscle: Moving Beyond Serum Creatinine to Define Cardiorenal Syndrome in HF” Heart Failure Society of American Annual Scientific Sessions, Nashville, TN, September 15, 2018
- L331) “Heart Failure in Cardiorenal Syndrome: Updates on Biomarkers” Cardiorenal Society of America Annual Scientific Meeting, Phoenix, AZ, October 6, 2018
- L332) “Novel Approaches in Lowering LDL-C” Cardiorenal Society of America Annual Scientific Meeting, Phoenix, AZ, October 6, 2018
- L333) “What Do We Know About Cardiorenal Physiology? An Overview” American Society of Nephrology Kidney Week, San Diego, CA, October 26, 2018
- L334) “Prevention of Heart Failure: The Next Frontier” Cardiometabolic Health Conference, Boston, MA, October 27, 2018

- L335) “AKI and Heart Failure: How to Manage Compared to the General Population”  
Cardiometabolic Health Conference, Boston, MA, October 27, 2018
- L336) “SGLT-2 Inhibitors and Cardio-renal Outcomes: Mechanistic Role and Rationale for  
Treatment of Heart Failure” American Heart Association Annual Scientific Sessions,  
Chicago, IL, November 10, 2018
- L337) “Obesity and Heart Disease” 44th Annual Williamsburg Conference on Heart Disease,  
Williamsburg, VA, December 4, 2018
- L338) “Current Concepts in Hypertension Management” University of Texas Health Science  
Center, Tyler, TX, January 15, 2019
- L339) “Managing the Heart Failure Patient with Worsening Renal Function (WRF)” 24th  
International Conference on Continuous Renal Replacement Therapies CRRT 2019, San  
Diego, CA, February 28, 2019
- L340) “Cardiorenal Syndrome: What Have We Learned?” 24th International Conference on  
Continuous Renal Replacement Therapies CRRT 2019, San Diego, CA, February 28, 2019
- L341) ” Debate: Biomarker Guided Heart Failure Therapy: Con: Neuropeptides; ST2” 15th  
Annual USCD Biomarkers in Heart Failure and Acute Coronary Syndromes, Diagnosis,  
Treatment & Devices, La Jolla, CA March 1, 2019
- L342) “Cardiorenal Syndromes” Cardioneurology Congress, Rome, March 12 to 14, 2019
- L343) “Iron and Heart Failure” Cardiometabolic Health Congress West meeting in Phoenix,  
AZ on Saturday, May 4, 2019
- L344) “Up to Date Management of Arrhythmias in Dialysis Patients” National Kidney  
Foundation Spring Clinical Meetings, May 11, 2019
- L345) “Lipids in Chronic Kidney Disease” National Kidney Foundation Spring Clinical  
Meetings, May 11, 2019
- L346) “Cardiorenal Syndromes” Helen Dunham Cardio-Renal Lecture and Cardiovascular  
Grand Rounds, Brigham and Women’s Hospital, Boston, MA, May 23, 2019
- L347) “Chronic Kidney Disease as a Cardiovascular Risk State” Helen Dunham Cardio-Renal  
Lecture and Cardiovascular Grand Rounds, Brigham and Women’s Hospital, Boston, MA,  
May 23, 2019

- L348) “Biomarkers and Assessment of Cardiac Function In Fabry Cardiomyopathy” 6th Update on Fabry Disease: Biomarkers, Progression and Treatment Opportunities, Prague, Czech Republic, May 26-28, 2019
- L349) “Contrast-Induced Acute Kidney Injury” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L350) “Cardiac Biomarkers in AKI” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L351) “Risk Mitigation in the Cardiac Catheterization Laboratory” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L352) “Pathophysiology and Current Concepts in Classification” Clinical Practice Clinical Science Track: Treatment of Cardiorenal Syndrome, American Heart Association Hypertension Scientific Sessions, New Orleans, LA, Sept 8, 2019
- L353) “Cardiovascular Genetics” 44th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 9, 2019
- L354) “Cardiorenal Syndromes” 17th World Congress on Insulin Resistance, Diabetes & Cardiovascular Disease (WCIRDC), Los Angeles, CA, December 4-7, 2019
- L355) “Cardiorenal Syndromes” Internal Medicine Grand Rounds, Eastern Virginia College of Medicine, Norfolk, VA, February 19, 2020
- L356) "Keynote Address: Prevention of Heart and Kidney Disease” Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 6, 2020
- L357) “Cardioprotective Effects of Antidiabetic Medications: Focus on Sodium-Glucose Transporter-2 Antagonists” Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L358) “Fabry Disease: A Unique Cardiorenal Model” Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L359) “Biomarkers in Heart and Kidney Disease: Practical Applications” Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L360) “Expert Briefing from ADA 2020 Select Sessions: Update on Heart Failure for the Diabetologist & Cardiorenal–Metabolic Axis in Diabetes” American Diabetes Association, June 14, 2020

- L361) “CKD, CHD and Hyperkalaemia: Clinical Outcomes, Morbidity and Mortality”  
American College of Cardiology - American Society of Nephrology Masterclass September 11, 2020
- L362) “RAASi Enabling in Cardiology Practice - Traditional vs New Potassium Binders; Potassium Binders for Treatment of Hyperkalaemia in HF” American College of Cardiology - American Society of Nephrology Masterclass September 11, 2020
- L363) “Optimizing Transitions from Hospital to Home: Best Practices for Reducing Readmissions in Heart Failure” Hospital Management Summit, October 3, 2020.
- L364) “Assessment and Management of Hyperkalemia in the Hospital Setting: Optimizing Patient Outcomes” Hospital Management Summit, October 3, 2020.
- L365) “Navigating the Challenges of Cardio-Renal Syndrome” 7th Annual Kansas Cardiovascular Symposium, October 10, 2020
- L366) “Management Considerations for Heart Failure in CKD” American Society of Nephrology Kidney Week 2020, October 24, 2020
- L367) “Pathophysiologic Basis and Rationale for Early Ambulatory Treatment of SARS-CoV-2 (COVID-19), Scilnov, November 2, 2020
- L368) “CV and Renal Benefits with new anti-diabetes medications: Potential Mechanisms” CReDO Conferences Middle East North Africa (MENA) 2020, November 6, 2020
- L369) “Consequences of Withholding GDMT for Heart Failure in CKD: One Step Forward, Two Steps Back” AHA 2020 November 16, 2020
- L370) “Early Ambulatory Treatment for SARS-CoV-2 (COVID-19)” Early Outpatient Treatment: An Essential Part of a COVID-19 Solution. US. Senate Committee on Homeland Security and Governmental Affairs, Washington DC November 19, 2020
- L371) “Pathophysiological Basis & Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection” 18th Annual World Congress Insulin Resistance Diabetes & Cardiovascular Disease, December 3, 2020
- L372) “Early Ambulatory Therapy for COVID-19 and Update on Vaccine Safety” Heritage Foundation, Washington DC, June 23, 2021
- L373) “Pathophysiological Basis and Clinical Rationale for Early Ambulatory Treatment of COVID-19” Question Everything Conference Lockdowns – Is Now the Time for a Better Solution?, London, UK, July 17, 2021

L374) “Pathophysiological Basis and Clinical Rationale for Early Ambulatory Treatment of COVID-19 and Update on Vaccine Safety” American Academy of Anti-Aging Medicine, Ann Arbor, MI, July 18, 2021

#### **INTERNAL COMMITTEE POSITIONS**

- 1) Member, Henry Ford Medical Group Hypertension Control Committee, 1998.
- 2) Ranking Member and Presenter, HFHS Institutional Review Board, 1998-2000.
- 3) Member, HFHS Teaching and Education Committee, Co-Chair of the Research Subcommittee, 1999-2000
- 4) Member, HFHS Graduate Medical Education Committee, 1999-2000.
- 5) Member, HFHS, Internal Medicine Residency Selection Committee, 1998-2000.
- 6) Chair, HFHS, Cardiovascular Diseases Fellowship Program Selection Committee, 1999-2000.
- 7) Co-Chair, HFHS, Information Technology and Medical Records Committee, 1999-2000.
- 8) Member, HFHS Department of Internal Medicine, Research Committee, 1999-2000.
- 9) Member, UMKC Adult Health Sciences Institutional Review Board, 2001-2002
- 10) Member, UMKC, Cardiovascular Diseases Fellowship Program Selection Committee, 2000-2002
- 11) Member, Truman Medical Center (TMC) Information Technology Steering Committee, 2001-2002.
- 12) Member, WBH Diabetes Research Center Steering Committee, 2002-2003
- 13) Chairperson, WBH Staff Privileges Appeals Committee, March 31, 2004
- 14) Chairperson, WBH Search Committee for Medical Director of Transplantation Medicine, 2005-2006
- 15) WBH Research Institute Board of Governors, board member, 2007-2010



- 16) Oakland University William Beaumont School of Medicine, Medical Student Committee (founding) for development of Liaison Committee on Medical Education (LCME) application, 2007-2010
- 17) St. John Providence Health System Graduate Medical Education Steering Committee (Chair), 2010 to 2013
- 18) St. John Providence Health System Research Leaders Committee, Chair, 2010 to 2012; Co-Chair 2012 to 2013
- 19) Ascension Michigan Research Affinity Group, Chair, 2010 to 2012; Co-Chair 2012 to 2013
- 20) St. John Providence Health System Executive Committee, 2011 to 2013
- 21) St. John Providence Health System Guidelines Committee, 2012 to 2013
- 22) St. John Providence Health System Presidents Council, 2012 to 2013
- 23) St. John Providence Health System Electronic Medical Record Meaningful Use Steering Committee, 2013
- 24) BUMC Graduate Medical Education Committee, 2014 to present
- 25) BUMC Internal Medicine Residency Program Clinical Competency Committee, 2014 to 2021
- 26) BUMC Clinical Cardiology Fellowship Program Clinical Competency Committee, 2014 to 2021
- 27) BUMC Founding Member, Department of Molecular Pathology and Medicine, 2016 to 2021
- 28) BUMC Precision Medicine Executive Committee, 2016 to 2021
- 29) BUMC COVID-19 Therapeutic Task Force 2020

### **EXTERNAL COMMITTEE POSITIONS**

- 1) Member, AHA National Women's Heart Disease and Stroke Campaign, Healthcare Provider Sub-Group, Dallas, TX, 1998-1999
- 2) Member, AHA, Chronic Coronary Disease in the Elderly National Database Planning Committee, Dallas, TX, 1998-2000

- 3) Chair, Michigan Chapter of the American College of Cardiology, Annual Mini-Board Review, 1999-2000
- 4) Member, Michigan Chapter of the American College of Cardiology, Annual Meeting Planning Committee, 1999-2000
- 5) Member, National Kidney Disease Outcomes Quality Initiative (K/DOQI) Clinical Practice Guidelines Committee on Chronic Kidney Disease, Andrew S. Levey, MD, Chair, 2001-2002
- 6) Member, K/DOQI Learning System (KLS)<sup>TM</sup> Advisory Board, NKF, New York, NY, 2003 to 2010
- 7) Member, International EECF Patient Registry Working Group, 2003-2008.
- 8) Counselor at large, Michigan Chapter of the American College of Cardiology, 2004-2006
- 9) Member, Planning Committee, AHA, Prevention VIII Conference: Kidney Disease, Hypertension, and Cardiovascular Disease, January 26-28, 2006, Orlando, FL
- 10) Chair, Contrast-Induced Nephropathy (CIN) Working Group Consensus Panel, (international, multispecialty, consensus panel with published findings) 2004-2006. Published in *Am J Cardiol* 2006 Vol 98(6)
- 11) Workgroup Member, Kidney Disease Improving Global Outcomes (KDIGO), United States Representative, Amsterdam, Netherlands, 2004, 2006
- 12) Member, Kidney Disease Improving Global Outcomes (KDIGO) Group for the development of Clinical Practice Guidelines for the Diagnosis, Evaluation, Prevention, and Treatment of Chronic Kidney Disease Related Mineral and Bone Disorders (CKD-MBD), Paris, France, 2007-2008
- 13) Board of Directors Member, Kidney Disease Improving Global Outcomes (KDIGO), United States Representative, Brussels, Belgium, 2007-2010
- 14) Workgroup Member, The Sixth International Acute Dialysis Quality Initiative (ADQI) Consensus Conference VI: Acute Kidney Injury in Cardiac Surgery, Vicenza, Italy May 27 – 28, 2007
- 15) Workgroup Leader, Prevention: The Seventh International Acute Dialysis Quality Initiative (ADQI) Consensus Conference VII: Cardiorenal Syndrome, Venice, Italy, September 4-5, 2008, with publication in *Nephrology, Dialysis, and Transplantation*, 2010.
- 16) Chairman, Natriuretic Peptide Testing in Acute Coronary Syndromes Consensus Panel, with published findings in *Reviews in Cardiovascular Medicine* 2010, Dallas, TX, March 2, 2010

- 17) Scientific Advisory Board, NKF, New York, NY, 2010 to present
- 18) Scientific Advisory Board, Cardiorenal Society of America, Phoenix, AZ, 2012 to present
- 19) Workgroup Member, “Cardiovascular Disease in CKD: What is it and what can we do about it?” Kidney Disease Improving Global Outcomes (KDIGO), October 29-31, 2010, London, England.
- 20) Chairman, “Cardio-Renal Syndromes II: from pathophysiology to therapy” Eleventh Consensus Conference Cardio-Renal Syndromes II November 30 – December 2, 2012, Venice, Italy.
- 21) Conference Co-Chair: “Kidney Disease Global Outcomes (KDIGO) Controversies Conference on Heart Failure in Chronic Kidney Disease”, Athens, Greece, May 25-28, 2017
- 22) Chairman, “Cardiometabolic University”, Dallas, TX, December 3-4, 2017
- 23) Chair, American Heart Association Council on the Kidney in Cardiovascular Disease and Council on Clinical Cardiology. Cardiorenal Syndrome: Classification, Pathophysiology, Diagnosis, and Treatment Strategies: A Scientific Statement From the American Heart Association, 2019
- 24) Committee Member, American College of Cardiology, Navigating Treatment Decisions for Patients with ASCVD and Multiple Comorbidities Committee, 2019-2020
- 25) Chief Medical Advisor, Truth for Health Foundation, Tucson AZ, 2021 to present
- 26) Advisory Board Member, TrialSite News, 2021 to present
- 27) National and International Advisor/Reviewer/Presenter/Contributor for 4D Molecular Therapies, ABC News, Abbott Laboratories, AbbVie, Advanced Health Media, Aegerion, Affymax, Akcea, Akebia, Alere North America, AMAG, Amersham, Amgen, Amylin, AntiSeptiscope, Aralez, Ardian, Adelyx, Arra Hitech, Astellas, AstraZeneca, Astute Medical, Atherotech, Axio, BG Medicine, Avenue Therapeutics, Aventyn, Back Bay Lifescience Advisors, Bayer, Biocritique, Bioexpertise, Biomarin, Bionest Partners, Bioporto, Biosite, Biostar, BioZ, Boehringer Ingelheim, Braintree Laboratories, Broeker, Bristol Myer Squibb, Cardiokine, Cardiorientis, Chapman and Priest, Charles River Associates, Chelsea Therapeutics, Chiesi USA, ClearView Healthcare Partners, Clinipace, Complexa, Connected Research and Consulting, CorMedix, Cornerstone Therapeutics, Corvidia, Covance, Critical Diagnostics, Cromsource, Crossover Technologies, Chrysalis BioTherapeutics, Cytopheryx, Cytel, DaVita, Daws, DeMatteo Monness, Diadexus, Daiichi Sankyo, Decision Resources, ECG Healthcare, Edwards Life Sciences, Elsevier, Espirion, F. Hoffmann-La Roche Ltd, Fast Biomedical, Fish and Richardson, LLC, Fisher Scientific, FlowMedica Inc, Frictionless Digital,

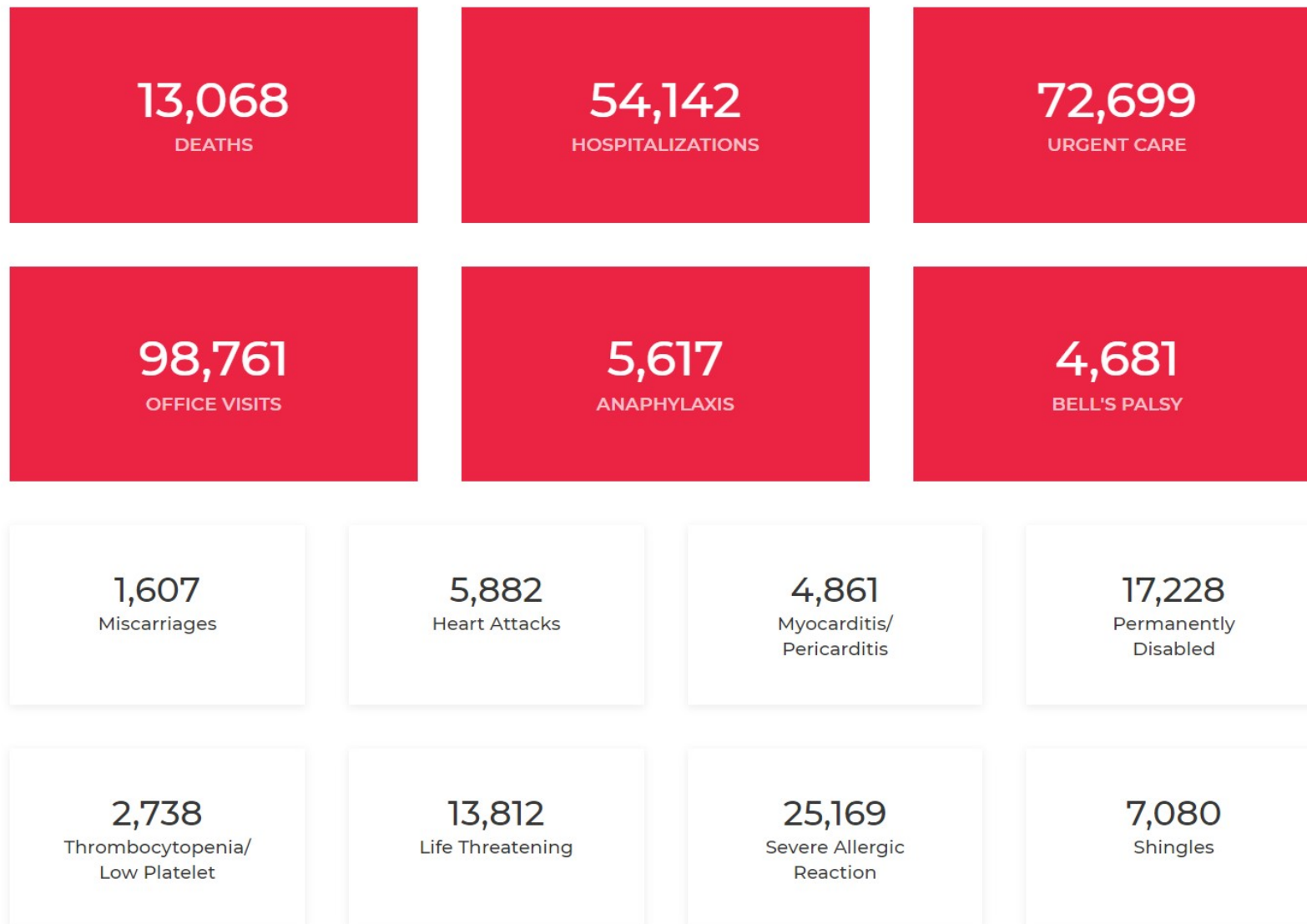
Fresenius Medical Care, General Electric, Genzyme, Gerson Lehrman, Gilead, GVI Clinical Development Solutions, Health Law Partners, Healthspan DX, HealthSTAR Communications, Hershey, Hikari, Hogan Lovells, Hudson Global, ICON, Huff, Powell, and Bailey, LLC, IMC Press, Imidex, Impact Education, Instrumentation Laboratories, Intercept Pharmaceuticals, Intrinsic Life Sciences, Ischemix Technologies, Janssen, Jannsen, Johnson and Johnson, Jordan, KAI Research, Keryx, Ketchum, Inc, Knowledge Point 360, Kowa, Eli Lilly, LabCorp, Lewis Brisbois, Liberty Dialysis, Ligand, Lipocine, Litchfield Cavo, Luitpold Pharmaceuticals, Lundbeck, Maxaccess Managed Markets, MannKind, MEDACorp, MedEd Group, Medevera, Medical Exchange International, Medical Package, Medicines Company, Medicure Pharma, Inc., MedReviews, Medscape, Medtronic, Merck, Meridian 361 International Law Group, Meso Scale Diagnostics, Miller Tanner Associates, Mitsubishi, Nanomix, Nanosphere, Nabi Biopharmaceuticals, Navigant, NephroGenix, Neumedicines, Noorik GmbH, Norman, Hanson, and Detroy, LLC, Novartis, NovoNordisk, NxStage, Ortho Clinical Diagnostics, Osprey, Otsuka, Overcome, P-value Communications, Parexel, Pharmapprove, Pfizer, Phoenix Holdings, Physicians World, PLC Medical, Praetego, PriMed, Progenabiome, Quidel Corporation, Qualidigm, Quintiles, Reata, Reliant Pharmaceuticals, Renew Research, Relypsa, Repros Therapeutics, Roche Diagnostics, Rock Creek, Saferox, Saghmos Therapeutics, Salix, Sanfit, Sankyo, Sanofi, Sarepta Therapeutics, Scarritt Group, Sentinel Investment, Sloan Law Firm, Sphingotec, Spectracell, St. Jude Medical, Strataca Systems, Statprobe, Sunshine Heart, Synageva, Takeda, Tasly, TheHill, Thrasos, TrialSiteNews, Trinity, Triptych Health Partners, US Medical Management, Vasomedical, Verrow, Vindico, Visiting Physicians Association, Vitalmetrix, Vivus, Watermark, WebMD, ZS Pharma, Inc.

# VAERS COVID Vaccine Data

Reports from the Vaccine Adverse Events Reporting System.  
Our data reflects all VAERS data including the "nondomestic" reports.  
[read the VAERS disclaimer](#)

595,620 Reports  
through August 13, 2021\*

[jump to browse highlighted reports](#) ▾



\* VAERS HHS releases COVID Data weekly, but they release LAST WEEK'S data. So an update will always lag a week behind.

# IN THE SUPREME COURT OF TEXAS

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No. 21-0720

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IN RE GREG ABBOTT, IN HIS OFFICIAL CAPACITY AS GOVERNOR OF THE  
STATE OF TEXAS

---

ON PETITION FOR WRIT OF MANDAMUS

---

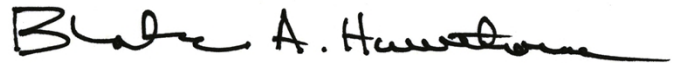
**ORDERED:**

1. Relator's emergency motion for temporary relief, filed August 23, 2021, is granted. The order on Appellees' Rule 29.3 Emergency Motion for Temporary Order to Maintain Temporary Injunction in Effect Pending Disposition of Interlocutory Appeal, filed August 17, 2021, in Cause No. 04-21-00342-CV, styled *Greg Abbott, in his official capacity as Governor of Texas v. City of San Antonio and County of Bexar*, in the Court of Appeals for the Fourth Judicial District, dated August 19, 2021, is stayed pending further order of this Court.

2. As we previously held in staying the trial court's temporary restraining order in the underlying case, the court of appeals' order alters the status quo preceding this controversy, and its effect is therefore stayed pending that court's decision on the merits of the appeal. *See In re Newton*, 146 S.W.3d 648, 651 (Tex. 2004). This case, and others like it, are not about whether people should wear masks or whether the government should make them do it. Rather, these cases ask courts to determine which government officials have the legal authority to decide what the government's position on such questions will be. The status quo, for many months, has been gubernatorial oversight of such decisions at both the state and local levels. That status quo should remain in place while the court of appeals, and potentially this Court, examine the parties' merits arguments to determine whether plaintiffs have demonstrated a probable right to the relief sought.

3. The petition for writ of mandamus remains pending before this Court.

Done at the City of Austin, this Thursday, August 26, 2021.

A handwritten signature in black ink, appearing to read "Blake A. Hawthorne". The signature is fluid and cursive, with a long horizontal stroke at the end.

BLAKE A. HAWTHORNE, CLERK  
SUPREME COURT OF TEXAS

BY CLAUDIA JENKS, CHIEF DEPUTY CLERK



# Public Health Guidance

September 17, 2021

The guidance in this document is authorized by Executive Order GA-38, which has the effect of state law under Section 418.012 of the Texas Government Code. Executive Order GA-38 provides TEA with the legal authority to publish requirements for the operation of public school systems during the COVID-19 pandemic. This document takes effect immediately, replacing all prior guidance. TEA recommends that public school systems consult with their local public health authorities and local legal counsel before making final decisions regarding the implementation of this guidance. This guidance is subject to change as new information becomes available.

This guidance addresses:

- On-campus instruction
- Non-UIL extracurricular sports and activities
- Any other activities that students must complete

For guidance on matters related to school system staff, please refer [here](#). Additionally, as a reference for practices recommended by the CDC, see [here](#).

## *Required Actions if Individuals with Test-Confirmed Cases Have Been in a School*

1. If an individual who has been in a school is test-confirmed to have COVID-19, the school must notify its [local health department](#), in accordance with applicable federal, state and local laws and regulations, including confidentiality requirements of the [Americans with Disabilities Act \(ADA\)](#) and Family Educational Rights and Privacy Act (FERPA).
2. Upon receipt of information that any teacher, staff member, student, or visitor at a school is test-confirmed to have COVID-19, the school must submit a report to the Texas Department of State Health Services via an online form. The report must be submitted each Monday for the prior seven days (Monday-Sunday).
3. Consistent with school notification requirements for other communicable diseases, and consistent with legal confidentiality requirements, schools must notify all teachers, staff, and families of all students in a classroom or extracurricular or after-school program cohort if a test-confirmed COVID-19 case is identified among students, teachers or staff who participated in those classrooms or cohorts.

## *Masks (restatement of pre-August 19<sup>th</sup> guidance document)*

Per GA-38, school systems cannot require students or staff to wear a mask. GA-38 addresses government-mandated face coverings in response to the COVID-19 pandemic. Other authority to require protective equipment, including masks, in an employment setting is not necessarily affected by GA-38.

School systems must allow individuals to wear a mask if they choose to do so.

## *Students Who Have COVID-19*

As provided in this [Department of State Health Services \(DSHS\) Rule](#), school systems must



exclude students from attending school in person who are actively sick with COVID-19, who are suspected of being actively sick with COVID-19, or who have received a positive test result for COVID-19, and must immediately notify parents if this is determined while on campus.

Parents must ensure they do not send a child to school on campus if the child has COVID-19 symptoms or is test-confirmed with COVID-19, until the conditions for re-entry are met. See the [DSHS rule](#) for more details, including the conditions for ending the exclusion period and returning to school.

During the exclusion period, the school system may deliver remote instruction consistent with the practice of remote conferencing outlined in the proposed *Student Attendance Accounting Handbook* (SAAH) rules, as described [here](#).

To help mitigate the risk of asymptomatic individuals being on campuses, school systems may provide and/or conduct recurring COVID-19 testing using rapid tests provided by the state or other sources. Testing can be conducted with staff. With prior written permission of parents, testing can be conducted with students.

#### *Students Who Are Close Contacts*

As a reference, close contact determinations are generally based on guidance [outlined by the CDC](#), which notes that individuals who are fully vaccinated may not need to follow the stay-at-home period.

As noted above, public health authorities will be notified of all positive cases in schools. While school systems are not required to conduct COVID-19 case investigations, local public health entities have authority to investigate cases and are currently engaged in cooperative efforts on that front. Participation by individuals in these investigations remains voluntary. If school systems are made aware that a student is a close contact, the school system must notify the student's parents.

School systems may choose to require household-based close contact students to stay at home during the below stay-at-home period if they are in an area with high or rising COVID case rates. This applies specifically to students who are close contacts because an individual who lives in the same household is COVID-19 positive.

Independent of whether a school system chooses to implement the above requirement, parents of students who are determined to be close contacts of an individual with COVID-19 may opt to keep their students at home during the recommended stay-at-home period. In cases when it is permitted, parents who opt to send their children to school in the two weeks following exposure are encouraged to closely monitor their children for symptoms.

For individuals who are determined to be close contacts, a 14-day stay-at-home period was previously advised by the CDC based on the incubation period of the virus. CDC has since updated their guidance, and the stay-at-home period can end for students experiencing no symptoms on Day 10 after close contact exposure, if no subsequent COVID-19 testing is performed.

Alternately, students can end the stay-at-home period if they receive a negative result from a PCR acute infection test after the close contact exposure ends.

During the stay-at-home period, the school system may deliver remote instruction consistent with the practice of remote conferencing outlined in the proposed *Student Attendance Accounting Handbook* (SAAH) rules, as described here.

*Staff Who Have COVID-19 or Who are Close Contacts*

Similar to students, school systems must exclude staff from attending school in person who are actively sick with COVID-19, who are suspected of being actively sick with COVID-19, or who have received a positive test result for COVID-19. Staff may return when the re-entry conditions have been met, as described in the [DSHS rule](#) used for students.

For staff who are not fully vaccinated who meet the close contact threshold with a COVID-19 positive individual, it is recommended that the school system require that staff remain off campus during the stay-at-home period, but this is a local employment policy decision.

For staff who meet the close contact threshold with a COVID-19 positive individual, if these staff continue to work on campus, rapid testing must be performed periodically for 10 days post-exposure.

**Case:**

05-21-00687-CV

**Date Filed:**

08/11/2021

**Case Type:**

Mandamus

**Style:**

In Re: Greg Abbott, In His Official Capacity As Governor of The State of Texas

**v.:****Orig Proc:**

Yes

**Transfer From:****Transfer In:****Transfer Case:****Transfer To:****Transfer Out:****Pub Service:**

West Publishing

**APPELLATE BRIEFS**

Date	Event Type	Description	Document
08/12/2021	Original Proceeding response filed	Real party in interest	<a href="#">[ PDF/402 KB ]</a> Real Party Response To P <a href="#">[ PDF/104 KB ]</a> Notice
08/11/2021	Petition for writ of mandamus filed	Relator	<a href="#">[ PDF/15.71 MB ]</a> Sworn Record <a href="#">[ PDF/5.18 MB ]</a> Writ Of Mandamus <a href="#">[ PDF/104 KB ]</a> Notice

## CASE EVENTS

Date	Event Type	Disposition	Document
08/13/2021	Memorandum opinion issued	Motion or Writ Denied	<a href="#">[ PDF/149 KB ]</a> Memorandum Opinion <a href="#">[ PDF/85 KB ]</a> Notice
08/13/2021	Order entered	Motion or Writ Denied	<a href="#">[ PDF/126 KB ]</a> Order <a href="#">[ PDF/85 KB ]</a> Notice
08/13/2021	Reply to response or motion filed		<a href="#">[ PDF/21.58 MB ]</a> Relator Reply Letter
08/12/2021	Response filed		<a href="#">[ PDF/36.88 MB ]</a> Real Party Response to P
08/12/2021	Sworn record filed		<a href="#">[ PDF/2.69 MB ]</a> Real Party Supplementa
08/12/2021	Original Proceeding response filed		<a href="#">[ PDF/402 KB ]</a> Real Party Response to P <a href="#">[ PDF/104 KB ]</a> Notice
08/11/2021	Submitted		
08/11/2021	Motion for emergency relief filed		<a href="#">[ PDF/779 KB ]</a> Emergency Motion for R <a href="#">[ PDF/105 KB ]</a> Notice
08/11/2021	Petition for writ of mandamus filed		<a href="#">[ PDF/15.71 MB ]</a> Sworn Record <a href="#">[ PDF/5.18 MB ]</a> Writ of Mandamus <a href="#">[ PDF/104 KB ]</a> Notice

## CALENDARS

Set Date	Calendar Type	Reason Set
08/13/2021	Case Stored	Case stored

## PARTIES

Party	PartyType	Representative
Abbott, Greg	Relator	Lanora Pettit Brent Webster William F. Cole Judd Stone II  Charla G. Aldous George Tex Quesada Amy Warr Sean J. McCaffity
Clay Jenkins, County Judge of Dallas County	Real party in interest	Andrew B. Sommerman Caleb Miller Douglas W. Alexander Kirsten M. Castaneda Tiffany Standly Brent Walker

**Court**

116th Judicial District Court

**County**

Dallas

**Court Judge**

Honorable Tonya Parker

**Court Case**

DC-21-10101

**Reporter**

Lanetta J. Williams

**Punishment**



EL PASO INDEPENDENT SCHOOL DISTRICT  
*Comprehensive Annual Financial Report*



# CAFR FY 2020

For the fiscal year ended **June 30, 2020** El Paso, Texas



**EL PASO INDEPENDENT SCHOOL DISTRICT  
COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

**EL PASO, TEXAS**

**PREPARED BY  
FINANCIAL SERVICES DEPARTMENT**

**EL PASO INDEPENDENT SCHOOL DISTRICT**

Comprehensive Annual Financial Report  
For the Fiscal Year Ended June 30, 2020

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Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2020

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**EL PASO INDEPENDENT SCHOOL DISTRICT**

Comprehensive Annual Financial Report  
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**INTRODUCTORY SECTION  
(UNAUDITED)**



# EL PASO INDEPENDENT SCHOOL DISTRICT

*Financial Services*

6531 Boeing Drive  
El Paso, TX 79925  
Phone (915) 230-2136  
Fax (915) 230-0120  
[www.episd.org](http://www.episd.org)

November 4, 2020

To the Board of Trustees and Taxpayers of the El Paso Independent School District:

The Texas Education Code requires that school districts file a set of financial statements with the Texas Education Agency (TEA) within 150 days of the close of each fiscal year. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in the *Government Auditing Standards* issued by the Comptroller General of the United States. Pursuant to this requirement, we hereby issue the Comprehensive Annual Financial Report of the El Paso Independent School District (the District) for the fiscal year ended June 30, 2020.

This report consists of management's representations concerning the finances of the District. Consequently, management assumes full responsibility for the completeness and reliability of the information presented in this report. To provide a reasonable basis for making these representations, District management has established relevant financial policies. These policies include a comprehensive internal control framework that is designed to protect its assets from loss, theft, or misuse. Additionally, the internal control framework is designed to compile sufficient reliable information for the preparation of the District's financial statements in conformity with Generally Accepted Accounting Principles (GAAP). Because the cost of internal controls should not outweigh their benefits, the District's comprehensive framework of internal controls has been designed to provide reasonable assurance rather than absolute assurance that the financial statements will be free from material misstatement. To the best of our knowledge and belief, this financial report is complete and reliable in all material aspects.

The firm Gibson Ruddock Patterson, LLC, audited the financial statements of the District. They are a firm of licensed, certified public accountants. The goal of the independent audit is to provide reasonable assurance that the financial statements of the District for the fiscal year ending June 30, 2020, are free of material misstatement. The independent audit involves examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation.

For financial reporting purposes, the El Paso Independent School District Administrative Public Facility Corporation (Public Facility Corporation) is included as a blended component unit in the operations and activities of the District. The criteria used to include the Public Facility Corporation as a blended component unit of the District are: the District appoints a voting majority of the Public Facility Corporation's governing body, the District can impose its will on the Public Facility Corporation, and the Public Facility Corporation serves the District exclusively as a financing vehicle for capital projects. The Public Facility Corporation's data is reported as a capital projects fund and is included in the other funds column of the governmental funds financial statements.

The District is required to undergo an annual "Single Audit" designed to meet the special requirements of federal grantor agencies. The standards governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the financial statements but also on the audited government's internal controls and compliance with legal requirements (with particular emphasis on internal controls and legal requirements for the administration of federal awards). The results of the District's single



audit for the fiscal year ending June 30, 2020, The results of the District's single audit for the fiscal year ending June 30, 2020, complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs and did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. These reports are available in the Reports on Compliance, Internal Control, and Federal Awards Section of this report.

Generally accepted accounting principles require that management provide a narrative introduction, overview, and analysis to the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with the basic financial statements. The District's MD&A can be found immediately following the report of the independent auditors.

The objective of budgetary controls is to ensure compliance with legal provisions embodied in the annual appropriated annual budget approved by the Board of Trustees. Every school district in Texas is required by law to prepare and file a budget with the Texas Education Agency. Governmental funds with annual budgets approved by the Board include activities of the General Fund, Child Nutrition Fund (special revenue), and debt service funds, which are included in the District's budget. Budgets for Special Revenue funds (other than the Child Nutrition Fund) and Capital Project funds are prepared on a project basis and based on grant regulations or applicable bond ordinances. Budgetary control (the level at which expenditures cannot legally exceed appropriations) is maintained at the functional category level within each fund. These functional categories are defined by the Texas Education Agency and identify the purpose of transactions. The District also maintains an encumbrance accounting system as one technique of accomplishing budgetary control. Encumbered amounts lapse at year-end. However, encumbrances outstanding at year-end are generally re-appropriated as part of the following year's budget.

As demonstrated by the statements and schedules included in the financial section of this report, the District continues to meet its responsibility for sound financial management.

### ***Background Information***

The El Paso Independent School District (EPISD) was organized in 1883 and is a Texas Certified District of Innovation. EPISD occupies 253 square miles in the western part of the state of Texas in El Paso County and serves a student population of approximately 55,000 in 84 campuses. EPISD is the 57<sup>th</sup> largest District in the United States and is the 13<sup>th</sup> largest District in Texas. The District is the largest civilian employer in El Paso, with more than 8,000 employees. The District has experienced a decline in student enrollment in the past eight years. It has a projected enrollment of 54,041 for the 2020-2021 school year. The 2019–2020 adopted general fund budget was \$510,687,905. EPISD is authorized to levy a property tax on taxable property located within its boundaries.

EPISD is not only a large district but also one rich in history. EPISD celebrated its 137<sup>th</sup> anniversary in 2020.

In late 1882, a newspaper headline read: "\$700 has been subscribed by the citizens of El Paso in lands, money and all material for the purpose of erecting a public school." So, the mission began. An election took place for a board, selecting Oscar T. Bassett as the first president, with Mayor Joseph Magoffin overseeing the new school board.

In the fall of 1883, El Paso, now a progressive city of 4,000, saw the first El Paso public school officially open. There were 200 students in an old wooden structure. The principal, John Merrill, received \$150 a month and used his furniture to furnish the school. Only one teacher was hired, Anna Moore, and she received \$75 a month. Calvin Esterly, the first superintendent, knew more needed to be done. He signed a contract to have a new large schoolhouse built that would be for all the students of El Paso.



In 1884, the building was constructed on the corner of Myrtle and Campbell streets and was called Central School. In 1893 it became home to the first public kindergarten class in Texas. In 1885, the first high school was established, and it was on the second floor of the building. The subjects deemed critical, at that time, included mathematics, grammar, and, at the top of the list, penmanship.

Through the years, EPISD has grown to encompass more than 253 square miles. It is bordered by the Texas-New Mexico state line, the US Mexico border, and Ysleta ISD.



EPISD has 1 K-8th school, 50 elementary schools, 15 middle schools and 10 traditional high schools. Specialty campuses include a Medical Magnet High School, an Early College High School, a Career & Technical Center, a PreK-8 Early Childhood Development Center and a Young Women's STEAM Research





& Preparatory Academy. Other campuses include a recovery program for students at risk of dropping out, an adult education school for GED and citizenship classes, and several magnet school programs.



El Paso High School is the oldest operating high school in El Paso and is part of the El Paso Independent School District. "The Lady on the Hill," as El Paso High is nicknamed, sits on a mountainside at the foot of the Franklin Mountains overlooking the central portion of the city and its boundary with Ciudad Juárez, Mexico. It stands out prominently on the horizon, commanding a view of the city. Designed by the architectural firm of Trost & Trost, the Greco-Roman features of El Paso High School make it a unique landmark in town.

Historic Jefferson High School, shown at right, will undergo a major renovation as part of the 2016 Bond Program. The existing main building will be replaced by a new 3-story classroom building. The project scope also includes a new weight room, softball field and renovations to the Gym. Construction is scheduled for completion by May 2022. Today, EPISD courses and programs are facilitated through a curriculum that aligns with state standards. EPISD leverages a strong



foundation and continuous improvement processes to ensure quality learning in every classroom every day. EPISD offers a variety of academic programs that not only address the needs of all learners but also prepare them for many post-secondary experiences. The diverse programs like law, engineering, medical magnets, dual language, International Baccalaureate, and New Tech are a few of the opportunities that students in EPISD have access to. Moreover, with our 5-year Plan to train and coach every teacher in active learning, we are on a trajectory to create great seats in every classroom. We are guided by our five student learning goals: a) to have knowledgeable and creative thinkers, b) informed problem solvers, c) effective bilingual communicators, d) responsible leaders and productive citizens, and e) socially and emotionally intelligent individuals.

### **Governing Body**

The Board of Trustees (Board) consists of seven members who serve, without compensation, a four-year term in office. On a rotating basis, three or four places are filled during the annual elections held on the second Saturday of May. Vacancies may be filled by appointment until the next election. Candidates must be qualified voters of the District.

Regular meetings are usually scheduled on the third Tuesday of each month and are held at the El Paso ISD Education Center. Special meetings and various committee meetings are scheduled as needed and announced in compliance with the Texas Open Meetings Act.

The Board has final control over local school matters limited only by the state legislature, the courts, and the will of the people as expressed in school board elections. Board decisions are based on a majority vote of the quorum present.

In general, the Board adopts policies, sets the direction for curriculum, employs the Superintendent and oversees the operations of the District and its schools. Besides general Board business, Trustees are charged with numerous statutory regulations, including calling trustee and other school elections and canvassing the results, organizing the Board, and electing its officers. The Board also is responsible for



setting the tax rate, setting salary schedules, and acting as a board of appeals in personnel and student matters, confirming recommendations for textbook adoptions, and adopting and amending the annual budget.

**Board of Trustees**

The seven-member EPISD Board of Trustees helps guide the El Paso Independent School District toward excellence. As the district's elected leaders, the Trustees represent the community's high expectations in the creation of high-quality, fiscally-sound educational programs and services that will help EPISD prepare El Paso's children for a successful future.

			
<b>Bob Goske</b> President	<b>Al Valverde</b> Vice President	<b>Diane Dye</b> Secretary	
			
<b>Joshua Acavada</b> Trustee	<b>Freddy Khilayal-Avalos</b> Trustee	<b>Daniel E. Call</b> Trustee	<b>Chuck Taylor</b> Trustee

**Vision** EPISD will be a premier educational institution, a source of pride and innovation, and the cornerstone of emerging economic opportunities by producing a future-ready workforce.

**Mission** EPISD will graduate every student prepared for life, college, and global, multicultural, twenty-first century careers.

The Board solicits and evaluates community input and support concerning actual policies. The Board is required to adopt a final budget by no later than the close of the fiscal year. This annual budget serves as the foundation of EPISD's financial planning and control. The budget is prepared by fund and function. Campus and department heads may transfer resources as they see fit. Transfers between functions require the approval of a majority of the members of the Board.

The financial statements are best understood when considered within the perspective of the environment in which the District operates.

### ***Economic Conditions and Outlook***

The city of El Paso sits astride the Franklin Mountains on the westernmost tip of the US state of Texas. To the south and west, across the Rio Grande River, is Ciudad Juárez, the largest city in the Mexican state of Chihuahua. Together with the city of Las Cruces to the north, in New Mexico, the cities combine to form what is known as the Paseo Del Norte metropolitan area. The region of over 2.7 million people constitutes the largest bilingual and binational workforce in the Western Hemisphere.

Marathon Petroleum Corporation, the largest petroleum refiner in the United States, operates a large refinery three miles east of downtown El Paso. The refinery was formerly the headquarters of Western





Refining and was purchased by Marathon Petroleum Corporation in September 2018. The City of El Paso is also home to two other publicly traded companies and the Medical Center of the Americas, the only medical research and care provider complex in West Texas and southern New Mexico. The University of Texas at El Paso is the city's primary university and home to the UTEP Miners. The city hosts the annual Sun Bowl college football post-season game, the second oldest bowl game in the country.

El Paso has a strong federal and military presence. William Beaumont Army Medical Center, Biggs Army Airfield, and Fort Bliss call the city home. Fort Bliss is one of the largest military complexes of the United States Army and the most extensive training area in the United States. Also headquartered in El Paso are the Drug Enforcement Administration (DEA) domestic field division 7, El Paso Intelligence Center, Joint Task Force North, US Border Patrol El Paso Sector, regional office for the Federal Bureau of Investigations and US Border Patrol Special Operations Group (SOG).

El Paso is ranked in the top 10 safest large cities to live in the US. The city was ranked first for four consecutive years and has ranked in the top three since 1997. In 2010 and 2018, El Paso received an All-America City Award. As of July 1, 2019, the population estimate for the city from the US Census was 681,728. Its US metropolitan area covers all of El Paso and Hudspeth counties in Texas and has a population of 840,758.

El Paso has a diversified economy focused primarily on international trade, military, government civil service, oil and gas, health care, tourism, and service sectors. The city has become a significant location for American-based call centers. Call center operations employ more than 10,000 people in the area. Automatic Data Processing (ADP) has an office in West El Paso, employing about 1,100 people with expansion plans to reach 2,200 by 2020. Agriculture such as cotton, fruit, vegetables, and livestock are produced locally or in surrounding areas. El Paso has added a significant manufacturing sector with items and goods provided that include petroleum, metals, medical devices, plastics, machinery, defense-related products and automotive parts. The city is the second busiest international crossing point in the US behind San Diego, California.

Tourism is another primary industry in El Paso, bringing in \$1.5 billion a year and over 2.3 million visitors annually due to the city's sunny weather, natural beauty, rich cultural history, and many outdoor attractions.

Education is also a driving force in El Paso's economy. El Paso's three large school districts are among the largest employers in the area, employing more than 20,000 people among them. El Paso experienced a spike in unemployment in 2019-2020, with the rate spiking to 14.9% in April of 2020. By June of 2020 the unemployment rate had decreased to 9.5%. The increase in unemployment was due to the effects of the Global COVID-19 Pandemic that hit the United States in March of 2020.

The District is one of many entities nationwide facing the economic impacts of this global pandemic. This pandemic has caused much disruption throughout our nation, state, and District. We will face this crisis head-on, recognizing that we may be negatively impacted economically and financially in the coming fiscal year and beyond. The level of impact is still uncertain. However, the District maintains strong internal budgetary controls and a sound fund balance, which may allow the District to mitigate the negative financial impacts that are yet to come.

### ***Major Initiatives***

In May 2015, the Board of Trustees adopted the EPISD 2020 Strategic Plan. Building on the theme of "I am EPISD," where all staff understand and own their role in the larger picture, outlined in this plan are initiatives that combine the collective efforts of constituents to build the future through both an "I am" and a "We Are" approach. In this plan, the vision and mission for the District were outlined as follows:



### Vision

El Paso Independent School District will be a premier educational institution, a source of pride and innovation, and the cornerstone of emerging economic opportunities by producing a twenty-first-century workforce.



### Mission

The El Paso Independent School District will graduate every student prepared for higher learning and careers to empower them as knowledgeable and engaged citizens, innovators, and drivers of a robust, bicultural economy.

The Board established a vision, mission, and the following goals for EPISD in 2020:

1. Implement a 5-year (FY2016-17 to FY2020-21) student performance improvement plan.
2. Implement an accountability system for major district programs and initiatives.
3. Improve employee satisfaction.
4. Improve community and stakeholder engagement and satisfaction.
5. Implement a 10 to 15-year facilities plan.
6. Reduce losses in declining enrollment to less than 1% per year.
7. Establish a 5-year Budget Plan.
8. Oversee the creation, development, and implementation of a long-term plan to achieve established goals.

More recently, the Board adopted additional focus areas to build on the strategic priorities and achieve district goals:

1. **Providing Engaging and Challenging Learning.** Success will be indicated by increased graduation rates and college enrollment, improved student assessment results, increased participation in and results of college entrance exams, improved student engagement, attendance, and behavior while decreasing discipline referrals and attrition.
  - By 2021, EPISD will have a graduation rate of 85 percent. The District currently has a graduation rate of 85 percent.
  - By 2021, 3,500 students will graduate with college credit. The District currently has 2,862 students with college credit.
2. **Building Strong Supports.** Success will be indicated by an increased focus of resources targeted toward school and student support, increased teacher growth and development, and an increase in community partnerships.
  - By 2021 EPISD will have 86 percent Public Support. The District currently has 81 percent Public Support.
  - By 2021, EPISD will have a 93 percent Teacher retention. The District currently has 90 percent Teacher retention.
3. **Modernizing Learning Environments.** All students will be in schools modernized within the past 20 years, and education support facilities will best serve the needs of the District.



- By 2021, EPISD will have 50 percent of enrolled students in an innovative learning environment, with a long term goal of 100 percent. The District currently has 20 percent of students in innovative environments.
- By 2021, EPISD will have 35,000 students in 1:1 learning environments. The District currently has 18,000 students in 1:1 learning environments.



In the 2020 Plan, EPISD established four strategic priorities to guide EPISD work: Active Learning, Great Community Schools, Community Partnerships, and Lead with Character and Ethics. The Plan builds on a commitment to these strategic priorities, outlines action-oriented focus areas, and leverages existing continuous improvement processes which work together toward community-identified student learning goals.

These strategic priorities are key to laying out the work of EPISD. Budget and financial planning is performed to ensure that resources are aligned with these strategic priorities.

On November 8, 2016, the taxpayers of EPISD passed a historic \$668.7 million bond proposal aimed at modernizing and right-sizing the District. The bond proposal passage was the result of a two-year

assessment of facilities that began with a study of campuses. The study included a thorough review of needs from the Facilities Advisory Committee -- a group of 80 community members that vetted the information on facilities' needs and ultimately voted to recommend the bond election. Over 1/3 of EPISD's school building portfolio is more than 45 years old, and another 1/3 is between 25 and 45 years old. Many of EPISD's schools were constructed quickly during the post-war baby boom era. Due to their current ages, they are exhibiting rapid deterioration. While EPISD has done a noble job maintaining these buildings with limited resources. Significant capital renewal is required to maintain safe, cool, dry school operations in facilities of this age profile. The underlining costs of maintaining and renovating the older EPISD buildings were included in the assessment results.

The 2016 Bond Program will help EPISD create 21st Century Learning Environments throughout the District to help facilitate the modern, future-ready teaching and learning techniques of a District of Innovation. The 2016 Bond will also consolidate schools into modern facilities that will help create a more sustainable inventory of campuses in EPISD. Other focus areas for the 2016 Bond include investments in athletic facilities, school buses, instructional technology, and safety and security measures.

The Board has committed to completing all 2016 Bond projects within five years. The projects will be reviewed by a 20-member Citizens Bond Advisory Committee that will frequently meet on behalf of the public to guarantee transparency and accountability. The public will also have an unprecedented overview of the 2016 Bond's progress through a series of interactive tools on the EPISD website that will show individual projects' status during construction.

While the 2016 Bond continued to be an important and critical event of the District for 2019-2020, student academic progress and initiatives were a top priority. Programs and activities were focused on student progress, initiatives, and plans for specific interventions based on data.

Additionally, the Texas Education Agency (TEA) selected EPISD to be part of the pilot year for the System of Great Schools Technical Assistance Network, or SGS. School districts in the SGS network will receive



intensive, system-level resources meant to support educators to design and lead high-quality schools, empower families with high-quality options and informed choices, and focus central office on high leverage oversight, innovation, and support.

### **Long-term Financial Planning and Relevant Financial Policies**

The District's Facilities Department continued work on the 2016 Bond Program, which began with the successful \$668,695,577 bond election in November 2016. The District issued approximately \$200,000,000 in January 2017, and approximately \$250,000,000 in January 2019. The District issued the remaining amount of the bond balance \$218,695,577, in 2020.

On October 11, 2018, the El Paso Independent School District Administrative Public Facility Corporation issued the \$16,385,000 Lease Revenue Bonds, Series 2018. The bonds will be used for the construction of a new administration building at 1014 N. Stanton, El Paso, Texas. The District's administration offices will consist of a new building and an existing building across the street at 1100 N. Stanton. The existing building is being refurbished with the proceeds from Qualified School Construction Maintenance Tax Notes issued in 2017.

In December 2018, the District received \$10,847,034 in capital lease proceeds to provide financing of energy upgrades to be installed under a guaranteed energy performance contract (EPC). The EPC program will provide updates to District schools that are not covered in the 2016 Bond Program.

In December 2019, the District's bond ratings were affirmed at "AA stable" by Fitch Ratings and "Aa2 stable" by Moody's. The District's bonds presently carry a "AAA" rating with both Fitch and Moody's. This long-term rating reflects the guarantee provided by the Texas Permanent School Fund.

### **Treasury Management**

The Board adopts a formal investment policy that guides investments made on behalf of the District. In 2018, the District received a two-year "Certification of Investment Policy" from the Government Treasurers' Organization of Texas for developing an investment policy that meets the requirements of the Public Funds Investment Act. The Treasury Office processes property value self-reports and audit reports with the State Comptroller's Property Tax Assistance Division. These reports offset property value losses in residential and commercial values due to value protests and lawsuits. The comptroller's office sends the reduction in property values to TEA. The result is an increase to State funding in the following fiscal year—the Treasury Office updates and posts the required annual Debt Transparency Report on the District's web site.

District investment earnings in all funds decreased from \$11.5 million in 2018-19 to \$10.5 million in 2019-20. This total includes \$2.5 million of interest revenue in the General Fund.

### **Budget Controls**

As budgets play an essential role in the planning, control, and evaluation of the District's operations, the Budget & External Financial Management Office is the link between initiative design and the financial plan used by the District to achieve its goals and objectives. On an annual basis, the Budget & External Financial Management Office sets goals based on improving processes to streamline its operations. The Budget & External Financial Management Office adheres to legal and contractual requirements for the development of the budget and presents it at an annual meeting to the Board of Trustees. The Budget & External Financial Management Office allocates resources to EPISD's prioritized needs that are developed during a review process.



## **Financial Management**

The Financial Services Department is a critical player in the District's current and long-term financial management strategy. The Financial Services Department includes five divisions: payroll, accounts payable, accounting, travel, and campus accounting. The Financial Services Department provides financial transparency and accountability and assists in maximizing academic achievement for students by establishing accurate and timely payment guidelines for employees and vendors. The Financial Services Department is also responsible for maintaining an effective system of internal controls; recognizing revenue and expenditures in the appropriate accounting period; utilizing modified and full accrual accounting methods in accordance with Generally Accepted Accounting Principles (GAAP); establishing and maintaining a capital asset accounting system; maintaining accountability for federal, state and local grants; adhering to the standards for financial accounting and reporting; informing the Superintendent, Board, and Taxpayers of the financial condition of the school district; and managing the external audit process.

Overall, the Financial Services Department continues to strive to implement processes and systems that will allow the District to achieve long-term financial planning strategies as it moves forward to deliver 21<sup>st</sup>-century academic strategies at all of its campuses and departments.

## **Awards and Acknowledgements**

A significant accomplishment was the preparation, completion, and issuance of the Comprehensive Annual Financial Report (CAFR). For the third consecutive year, the District submitted for a CAFR review and proudly received two prestigious recognitions to include the Certificate of Achievement for Excellence in Financial Reporting Program through the Government Finance Officers Association (GFOA) and the Association of School Business Officials (ASBO). Users of the financial statements will have access to a high-quality report promoting better transparency to taxpayers and other stakeholders. Credit rating agencies and other interested parties may view the award as a decisive factor in decision making.

EPISD earned a "Superior Achievement" rating from the Texas Education Agency on the 2020 Financial Integrity Rating System of Texas (FIRST), which relates to data for the fiscal year 2018-2019. EPISD has received the highest rating of "Superior Achievement" for 17 years and an "Above Standard" rating for 2018, which is related to data for the fiscal year 2016-2017. The FIRST rating is designed to measure the financial solvency of Texas school districts.

EPISD has received the Government Treasurer's Organization of Texas (GTOT) Certificate of Distinction for its Investment Policy for its commitment to maintaining a comprehensive written investment policy that meets the criteria set forth in the GTOT Investment Policy Review Checklist.

EPISD's Procurement and School Resources Department has earned the Award of Merit with Recognized Status from the Texas Association of School Business Officials (TASBO) for 2016-2017, 2017-2018, 2018-2019, and 2019-2020 fiscal years. TASBO's Purchasing Award of Merit is presented to school districts committed to professional standards in the acquisition of goods and services.

Many of EPISD's school finance and operations professionals have completed the certification program offered by TASBO and have received the highest certification of Registered Texas School Business Administrator (RTSBA).

## **Academic Highlights**

The Texas Education Agency (TEA) implemented a new accountability rating system in the 2018 academic year. TEA's overall design of the accountability system evaluates performance according to three domains: Student Achievement, which assesses performance across all subjects for all students; School Progress



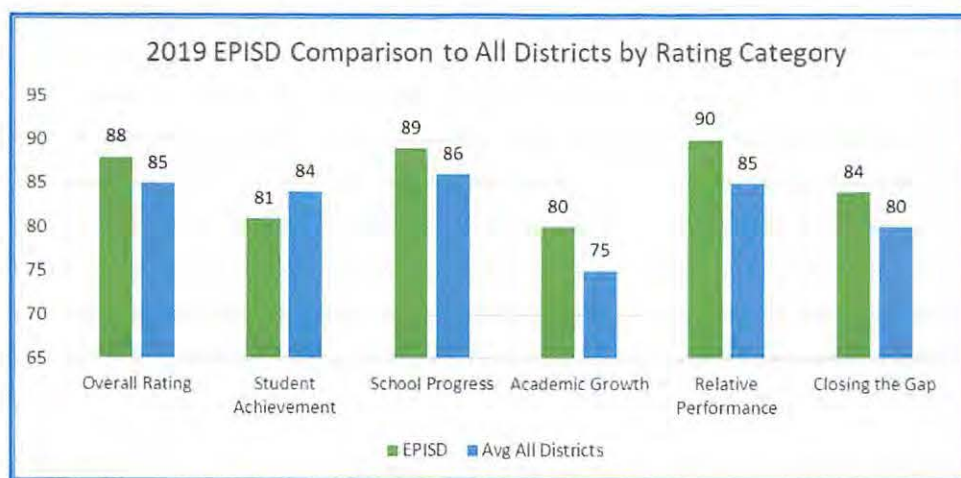


which measures district and campus outcomes in academic growth from one year to another; and Closing the Gaps which measures the performance of subgroups. Districts received an accountability letter grade of A, B, C, D, or F while campuses were assigned the Met Standard, Improvement Required, Met Alternative Standard, or Not Rated labels.

All Texas school districts and campuses were labeled *Not Rated: Declared State of Disaster* for 2020 in the TEA Accountability Rating System. The 2019 accountability rating reports will be applied to the 2020 fiscal year.\*

In 2019 El Paso Independent School District (EPISD) received an overall grade of 88, with an overall rating of a B. 1,189 school districts received a TEA accountability rating for 2019. The total statewide grade distribution is as follows: A: 301 Districts; B: 677 Districts; C: 154 Districts; D: 43 Districts; F: 14 Districts.

\*The following graph indicates the District's standing in relation to all districts in the state in 2019.



There are 59 (63%) EPISD campuses that received one or more distinctions. Distinctions were given on the performance of Reading/ELA, Mathematics, Science, Social Studies, along with the accountability domains for Academic Growth, Gap, and Post-Secondary Readiness.

### Summary

The preparation of this report on a timely basis could not be accomplished without the efficient and dedicated services of the entire staff of the Financial Services Department. We want to express our sincere appreciation to all other District administrative staff who assisted and contributed to this report's preparation. We would also like to express gratitude to the Board of Trustees for their interest and support in the District's financial operations. Finally, we would like to thank the residents of the District for their support of our public schools, and the principals, teachers, support staff, and administration who provide the excellent standard of educational services for which the District has become known.

Respectfully submitted,

*Carmen Arrieta-Candelaria*

Carmen Arrieta-Candelaria  
Deputy Superintendent for Finance and Operations



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**El Paso Independent School District  
Texas**

For its Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

June 30, 2019

Executive Director/CEO



**The Certificate of Excellence in Financial Reporting  
is presented to**

**El Paso Independent School District**

**for its Comprehensive Annual Financial Report (CAFR) for  
the Fiscal Year Ended June 30, 2019.**

The CAFR meets the criteria established for  
ASBO International's Certificate of Excellence.



A handwritten signature in black ink, appearing to read 'Tom Wohlleber'.

Tom Wohlleber, CSRM  
President

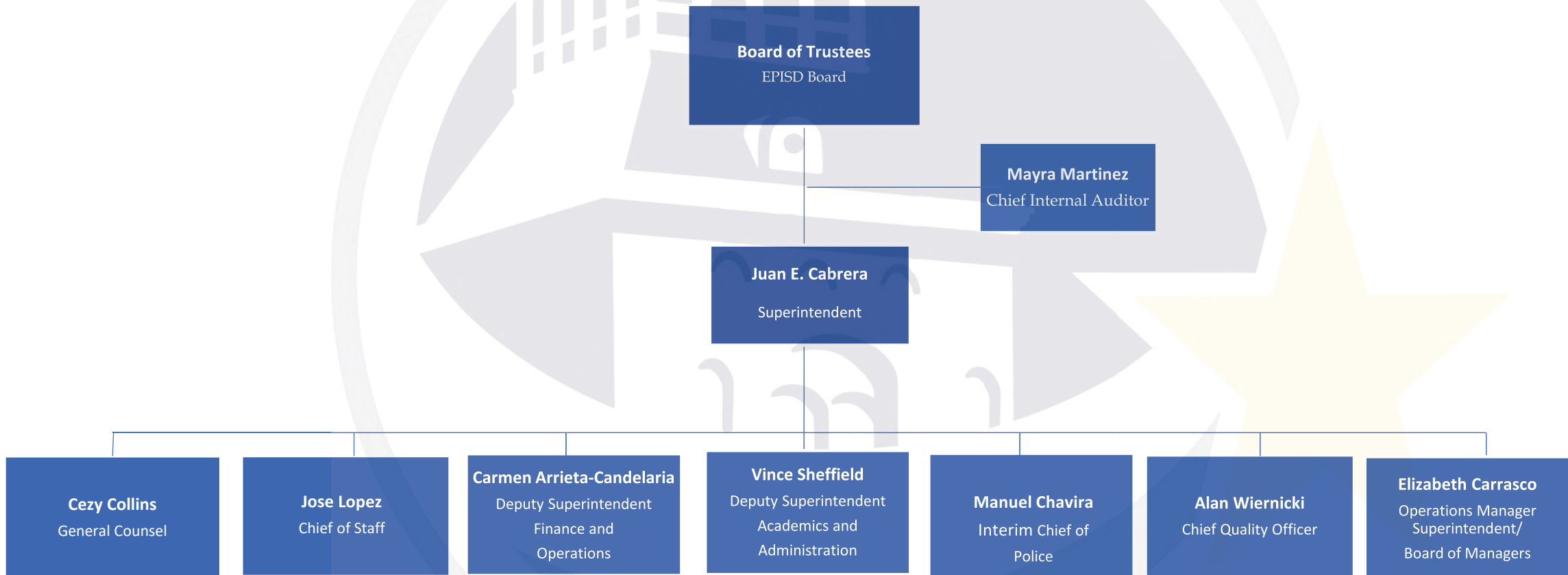
A handwritten signature in black ink, appearing to read 'Siobhán McMahon'.

Siobhán McMahon, CAE  
Chief Operating Officer





# El Paso Independent School District 2019 - 2020 Organizational Chart



**EL PASO INDEPENDENT SCHOOL DISTRICT**

**PRINCIPAL OFFICIALS**

**BOARD OF TRUSTEES**

Bob Geske  
President

Al Velarde  
Vice-President

Diane Dye  
Secretary

Joshua Acevedo  
Member

Freddy Khlayel-Avalos  
Member

Daniel E. Call  
Member

Chuck Taylor  
Member

**ADMINISTRATION**

Juan Cabrera  
Superintendent

## CERTIFICATE OF BOARD

El Paso Independent School District  
Name of School District

El Paso County  
County

071902  
Co.-Dist. Number

We, the undersigned, certify that the attached annual financial and compliance reports of the above named school district were reviewed and \_\_\_\_\_ approved \_\_\_\_\_ disapproved for the year ended June 30, 2020, at a meeting of the Board of Trustees of such school district on the 17<sup>th</sup> day of November 2020.

\_\_\_\_\_  
Signature of Board Secretary

\_\_\_\_\_  
Signature of Board President

If the Board of Trustees disapproves of the independent auditor's report, the reason(s) for disapproving it is(are): (attach list as necessary)

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**FINANCIAL SECTION**

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## INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees  
El Paso Independent School District

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of El Paso Independent School District as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the El Paso Independent School District's basic financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditor's Responsibility***

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, each major fund, and the aggregate remaining fund information of El Paso Independent School District, as of June 30, 2020, and the respective changes in financial position, and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## ***Other Matters***

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, budgetary comparison, and the TRS pension and other post employment benefits information on pages 25 through 40 and 119 through 130 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Supplementary and Other Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the El Paso Independent School District's basic financial statements. The introductory section, combining and individual nonmajor fund financial statements, required TEA schedules, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements. The schedule of expenditures of federal awards is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is also not a required part of the basic financial statements.


The combining and individual nonmajor fund financial statements and the schedule of expenditures of federal awards are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual nonmajor fund financial statements and the schedule of expenditures of federal awards are fairly stated in all material respects in relation to the basic financial statements as a whole.



The introductory section, required TEA schedules, and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by Government Audit Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated November 4, 2020, on our consideration of the El Paso Independent School District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of El Paso Independent School District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the El Paso Independent School District's internal control over financial reporting and compliance.

A handwritten signature in black ink, appearing to read "Gibson Ruddock Patterson, LLC". The signature is fluid and cursive, with the letters "G", "R", and "P" being particularly prominent.

Gibson Ruddock Patterson, LLC  
El Paso, Texas  
November 4, 2020

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**MANAGEMENT'S DISCUSSION AND ANALYSIS**

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the **El Paso Independent School District's** (the "District") financial performance provides an overview of the District's financial activities for the fiscal year ended June 30, 2020. It should be read in conjunction with the basic financial statements, which follow this section.

The Management's Discussion and Analysis is a combination of both government-wide financial statements and fund financial statements.

### FINANCIAL HIGHLIGHTS

The District's change in net position from normal operations was an increase of \$3.6 million. Total net position of the District increased from \$(24.0) million in fiscal year 2019 to a deficit \$(20.4) million at year-end 2020. Of this total amount, unrestricted net position decreased by \$4.4 million from \$(287.2) million to a deficit of \$(291.6) million. Total revenues increased \$46.1 million from \$667.6 million in fiscal year 2019 to \$713.7 million in fiscal year 2020. Total expenses increased \$42.9 million from \$666.7 million to \$709.6 million.

The District's governmental fund financial statements reported a combined ending fund balance in fiscal year 2020 of \$615.8 million. The combined ending fund balance of the District increased \$44.0 million from \$571.8 million in fiscal year 2019. Of this total amount, \$2.0 million is Non-spendable, \$483.1 million is Restricted, \$26.8 million is Assigned, and \$103.9 million is Unassigned in the General Fund and is available for spending at the District's discretion.

The Board of Trustees approved a reallocation project listing for the 2008 Bond Capital Projects fund in December 2016. The Delta Operations Center was completed in November 2019. The Transportation, Maintenance, Custodial, and Food Service departments moved to that facility and vacated the Central Administration building. Other projects that were completed were the Coronado Agriculture Farm and Douglas Elementary School improvements. The fund balance is \$8.4 million as of June 30, 2020 and expenditures were \$24.0 million for the year ended June 30, 2020.

On November 8, 2016, the voters approved a bond proposal totaling \$668.7 million. Bond funds are also being utilized for consolidations and modernizing existing school facilities. The Board of Trustees has committed that all 2016 Bond projects be completed within five years.

The fund balance is \$383.1 million as of June 30, 2020 and expenditures of \$187.5 million for the year ended June 30, 2020. The District website features a dashboard showing the progress of all projects.

Other significant projects completed during fiscal year 2020 include the following: school improvements at Telles Academy and Brown Middle School; ADA improvements at Bassett Middle School; new flooring installed at Lamar Elementary School, Canyon Hills Middle School and Bliss Elementary School. Athletic improvements include the following: replacement of gym floor at Andress High School; replacement of stadium lighting at El Paso High School; basketball court resurfaced at Stanton Elementary School; gym stabilization at Richardson Middle School. Digital Pneumatic controls at Silva Health Magnet School, Zack White Elementary School and Center for Career and Technology Education. Energy efficient upgrades were installed at Franklin High School, Canyon Hills, Wiggs, Richardson Middle Schools and Douglass, Hillside, Lamar, Park, Putnam, Zavala, Lee, Whitaker, Nixon and Kohlberg Elementary Schools.

## OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the District's basic financial statements. The District's basic financial statements are comprised of three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the basic financial statements. This is illustrated in Figure A-1 below. This report also contains required supplementary information, other supplementary information, TEA required schedules, and statistical schedules in addition to the basic financial statements themselves.

Figure A-1. The figure shows how the required parts of this annual report are arranged and related to one another.

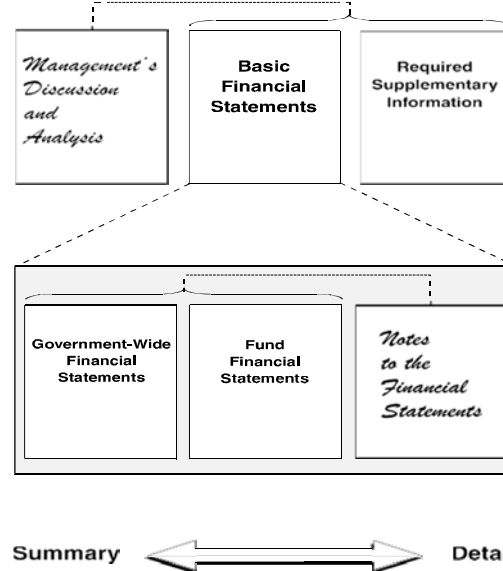


Figure A-2 below summarizes the major features of the District's financial statements and the types of information they contain.

Major Features of the District's Government-Wide and Fund Financial Statements				
	Fund Statements			
Type of Statements	Government-Wide	Governmental Funds	Proprietary Funds	Fiduciary Funds
Scope	Entire Agency's Government (except fiduciary funds) and the Agency's component units	The activities of the District that are not proprietary or fiduciary	Activities the District operates similar to private business	Instances in which the District is the trustee for contributions or agent for someone else's resources
Required financial statements	• Statement of net position	• Balance Sheet	• Statement of net position	• Statement of fiduciary net position
	• Statement of activities	• Statement of revenues, expenditures, & changes in fund balance	• Statement of revenues, expenses and changes in fund net position • Statement of cash flows	• Statement of changes in fiduciary net position
Accounting basis and measurement focus	Accrual accounting and economic resources focus	Modified accrual accounting and current financial resources focus	Accrual accounting and economic resources focus	Accrual accounting and economic resources focus
Type of asset/liability information	All assets, deferred outflows and liabilities, deferred inflows both financial and capital, short-term and long-term	Only assets, deferred outflows, expected to be used up and liabilities, deferred inflows, that come due during the year or soon thereafter; no capital assets included	All assets, deferred outflows and liabilities, deferred inflows, both financial and capital, and short-term and long-term	All assets and liabilities, both short-term and long-term; the Agency's funds do not currently contain capital assets, although they can
Type of inflow/outflow information	All revenues and expenses during the year, regardless of when cash is received or paid	Revenues for which cash is received during or soon after the end of the year, expenditures when goods or services have been received and payment is due during the year or soon thereafter	All revenues and expenses during year, regardless of when cash is received or paid	All revenues and expenses during year, regardless of when cash is received or paid

## Government-Wide Financial Statements

All of the District's services are reported in the government-wide financial statements (refer to Exhibits A-1 and B-1), including instruction, student support services, student transportation, general administration, school leadership, facilities acquisition and construction, and food services. Property taxes, state and federal aid, and investment earnings finance most of the activities. Additionally, all capital and debt financing activities are reported on these statements.

The government-wide financial statements are designed to provide readers a broad overview of the District's finances, in a manner similar to a private-sector business.

The District's net position (the difference between assets plus deferred outflows of resources and liabilities plus deferred inflows of resources) provide one measure of the District's financial health, or financial position. Over time, increases or decreases in the net position may serve as a useful indicator of whether the District's financial position is improving or deteriorating.

The statement of activities details how the District's net position changed during the most recent fiscal year. All changes in the net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Therefore, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes and earned but unused sick leave and pension and other post-employment benefits).

The government-wide financial statements distinguish functions of the District that are principally supported by taxes and intergovernmental revenues (governmental activities), as opposed to business-type activities that are intended to recover all, or a significant portion, of their costs through user fees and charges.

## Fund Financial Statements

The District uses fund accounting to keep track of specific sources of funding and spending for particular purposes. The fund financial statements provide additional detailed information about the District's most significant funds, not the District as a whole. Funds are accounting devices that the District uses to keep track of specific sources of funding and spending for particular purposes:

- Some fund restrictions are required by state law and by bond covenants.
- The District establishes other funds to control and manage money for particular purposes, or to show that it is properly using certain grants.

All of the funds of the District can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

**Governmental funds** are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. Most of the District's activities are included in governmental funds using modified accrual accounting. The focus is on 1) how cash and other financial assets can readily be converted to cash flow in and out, and 2) the balances left at year-end that are available. However, unlike the government-wide financial statements, governmental fund financial statements provide a detailed short-term view that helps determine whether there are more or fewer financial resources that can be spent in the near future to finance the District's programs.

**Proprietary funds** are used to account for operations financed similar to those found in the private sector. These funds provide both long and short-term financial information. The District maintains a type of proprietary fund called an Internal Service Fund. The District uses Internal Service Funds to account for its Workers' Compensation, Health Insurance Fund, and Print Shop programs. These funds employ the full accrual method.

***Fiduciary funds*** are used to account for assets held by the District, in a trustee capacity or as an agent, for individuals, private organizations and/or other funds. No fiduciary funds are used as clearing accounts to distribute financial resources to other funds. The District is responsible for ensuring that the assets reported in these funds are used for their intended purposes. The District uses fiduciary funds to account for student activity funds, scholarships, and restricted donations. All of the District's fiduciary activities are reported in a separate statement of fiduciary net position, statement of changes in fiduciary net position, and the statement of changes in assets and liabilities. We exclude these activities from the District's government-wide financial statements, because the District cannot use these assets to finance its operations.

### **Notes to the Basic Financial Statements**

The notes to the basic financial statements provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements.

### **Other Information**

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information that further explains and supports the information in the financial statements and the government wide statements. Immediately following, the required supplementary information, combining statements for the non-major funds, the internal service funds, the fiduciary funds, required TEA schedules, and statistical schedules are included.

## GOVERNMENT-WIDE FINANCIAL ANALYSIS

## Statement of Net Position

As noted earlier, the net position may serve, over time, as a useful indicator of the District's financial position. The District's total net position was approximately \$(20.4) million for the year ended June 30, 2020. The District's governmental activities net position increased by \$3.6 million.

Table I  
El Paso Independent School District  
**Statement of Net Position**  
(in millions of dollars)

<u>Governmental Activities</u>	<u>2020</u>	<u>2019</u>	<u>Variance</u>	<u>% Change</u>
Current and other assets	\$750.1	\$679.8	\$70.3	10.3%
Capital Assets	875.9	664.6	211.3	31.8%
Non-Current Assets	19.1	8.9	10.2	114.6%
<b>Total Assets</b>	<b>1,645.1</b>	<b>1,353.3</b>	<b>291.8</b>	<b>21.6%</b>
Deferred Charge for Refunding	14.8	16.0	(1.2)	(7.5)%
Deferred Outflow for Asset Retirement Obligation	1.3	1.3	0.0	0.0%
Deferred Outflow Related to TRS OPEB	25.4	19.5	5.9	30.3%
Deferred Outflow Related to TRS Pension	76.2	96.4	(20.2)	(21.0)%
<b>Total Deferred Outflows of Resources</b>	<b>117.7</b>	<b>133.2</b>	<b>(15.5)</b>	<b>(11.6)%</b>
Current Liabilities	162.4	120.7	41.7	34.5%
Non-Current Liabilities	1,472.7	1,298.8	173.9	13.4%
<b>Total Liabilities</b>	<b>1,635.1</b>	<b>1,419.50</b>	<b>215.6</b>	<b>15.2%</b>
Deferred Inflow Gain on Refunding	2.0	0.4	1.6	400.0%
Deferred Inflow Related to TRS OPEB	107.2	75.8	31.4	41.4%
Deferred Inflow Related to TRS Pension	38.9	14.8	24.1	162.8%
<b>Total Deferred Inflows of Resources</b>	<b>148.1</b>	<b>91.0</b>	<b>57.1</b>	<b>62.7%</b>
Net Position:				
Net Investment in Capital Assets	226.3	234.3	(8.0)	(3.4)%
Restricted	44.9	28.9	16.0	55.4%
Unrestricted	(291.6)	(287.2)	(4.4)	(1.5)%
<b>Total Net Position</b>	<b>(\$20.4)</b>	<b>(\$24.0)</b>	<b>\$3.6</b>	<b>15.0%</b>

Investment in capital assets (e.g. land, buildings, furniture, and equipment), less any related debt used to acquire those assets that is still outstanding is \$226.3 million. The District uses these capital assets to provide services to students; consequently, these assets are not available for future spending. Although the District's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities. An additional portion of the District's net position of \$44.9 million represents resources that are subject to external restrictions on how they may be used. The remaining balance of the unrestricted net position may be used to meet the District's ongoing obligations. During the fiscal year 2020 the unrestricted net position of the District resulted in a negative amount of (\$291.6) million; as a result of the a prior year implementation of the GASB No. 75 Accounting and Financial Reporting for post-employment benefits other than previous.



## Statement of Activities

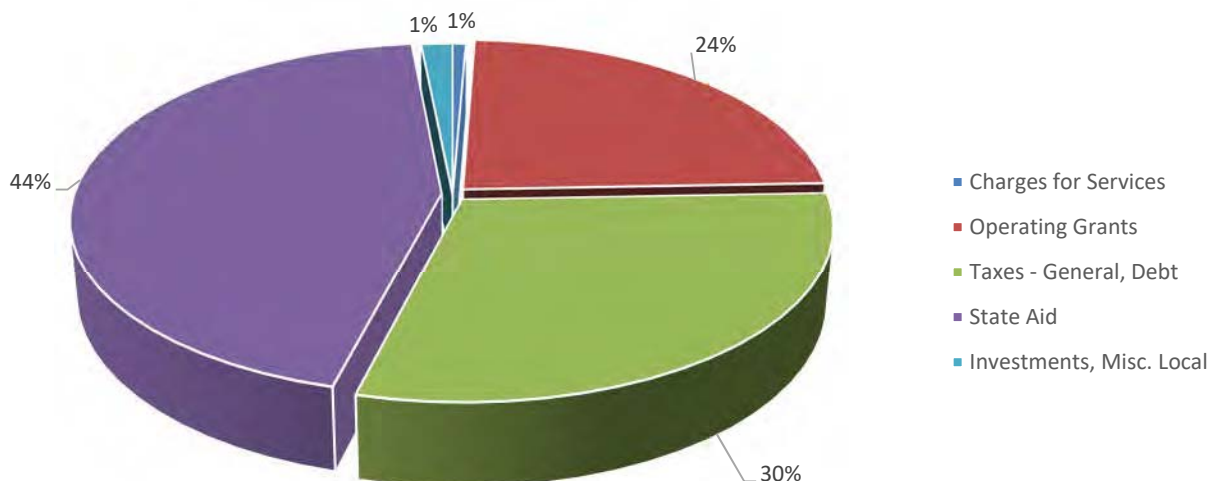
### Revenues

The District's total revenues were \$713.7 million. A significant portion, approximately 44%, of the District's revenue comes from state aid-formula grants. Operating grants and contributions provided 24% of revenue, 30% comes from property taxes, while only 2% relates to charges for services, investment income, and local miscellaneous sources.

Funding for governmental activities is by specific program revenue or through general revenues such as, property taxes and investment earnings. The following is a summary of the governmental activities:

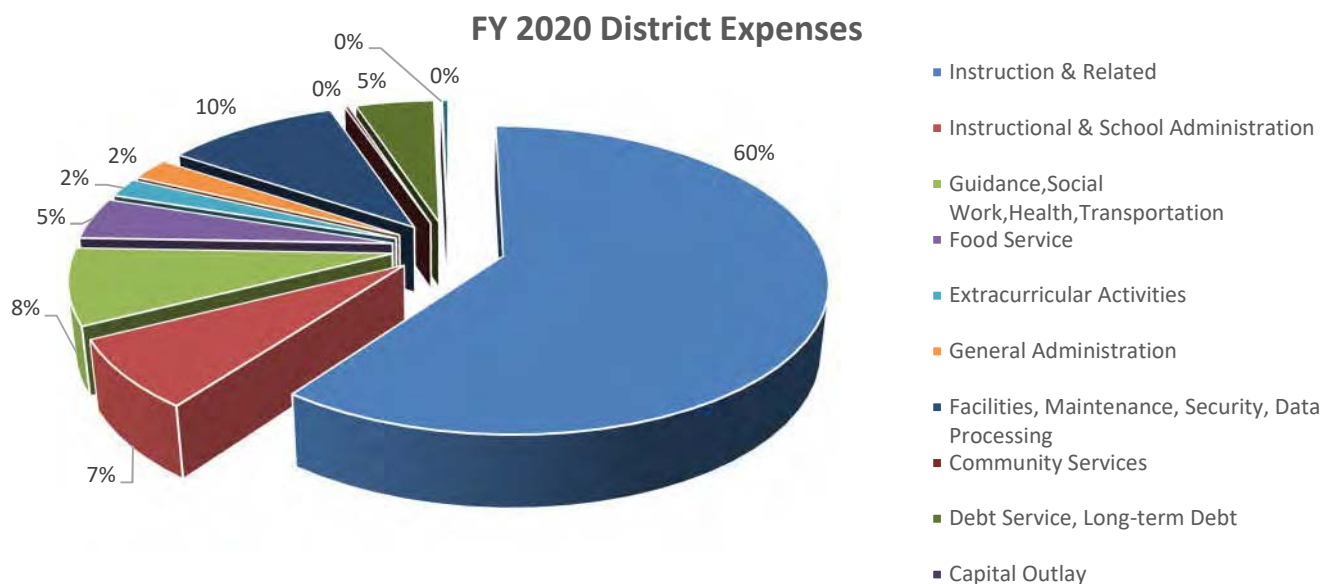
- The cost of all *governmental activities* this year was \$709.6 million.
- Program revenues directly attributable to specific activities funded some of the governmental activities. These program revenues amounted to \$174.1 million.
- The remaining cost of *governmental activities*, not directly funded by program revenues, was \$535.5 million of which \$211.1 million was funded by property taxes, and \$316.7 million was funded by state aid – not restricted to specific programs.

**FY 2020 District Revenue**



## Expenses

The District's total expenses were \$709.6 million. The largest portion, \$427.3 million or approximately 60%, was spent on instruction and instructional related services. Meanwhile, expenses for instructional leadership and school administration were 7%, 8% for guidance, social work, health and transportation, 10% for facilities, maintenance, security and data processing, while 2% relates to general administration.



## Changes in Net Position

The change in net position for fiscal year 2020 totaled \$3.6 million. The District's governmental activities net position had an overall increase of \$3.6 million or 15.0%. The total net position of the District was impacted by the following activities:

- Property tax revenue decreased by \$10.9 million in the General Purposes, and increased by \$10.8 million in the Debt Service, for a net decrease of \$75 thousand. The overall decrease was due to a 2.9% increase in property values and a decrease in the total tax rate of 4.2 cents. The decrease of 10.2 cents in the General Fund was part of HB3 tax compression. The 6 cent increase in the I&S rate was due to increased bond payments.
- Investment earnings decreased by \$869 thousand from the prior year due to lower interest yields. The decrease was partially offset by an increase in investable funds from bond proceeds.
- State Aid-Formula Grants increased by \$31.2 million due to higher State Foundation funding. The increase was a result of the passage of House Bill 3 (HB3) in 2019. HB3 increased the school funding basic allotment from \$5,651 to \$6,160. It also provided increased funding for Compensatory Education, Special Education, Bilingual Education, and Career & Technology. There were also new state allotments for Early Education and College, Career, & Military Readiness. State revenue increased despite lower enrollment and lower average daily attendance (ADA).
- Operating grants and contributions increased \$17.4 million. This increase was primarily attributed to the funding received through the Coronavirus Aid, Relief, and Economic Security Act (CARES). Under the CARES Act, the District received \$18.7 million for the Elementary and Secondary School Emergency Relief (ESSER) Grant. The District utilized the funding to maintain continuity of services for elementary teacher salary expenses.

- Overall, the District experienced an increase of \$42.9 million in expenses. The increase directly correlates to the compensation package approved by the Board of Trustees for FY 2019-2020 to maintain competitive pay within the District's capacity to allocate resources. The compensation package included an increase in the starting pay for teachers, librarians and student activity managers, a differentiation adjustment, and a five percent increase from the base pay. Other compensation package benefits included a five percent from mid-point increase to all other employees; a fall and spring stipend to eligible employees; an increase in the number of days on duty and starting pay for nurses; an increase in starting pay for bus drivers; a self-funded health plan and an increase to the District's contribution to the Workers' Compensation Fund for approximately \$31.1 million.
- Other contributing factors include an investment for classroom furniture of \$4.9 million, Dual Language textbooks for Kinder - 5<sup>th</sup> grade levels of \$1.3 million and a payment for electronic devices of \$3.0 million.
- During FY 2019-2020, the District was affected by the global pandemic of COVID19. In an effort to maintain continuity of services, the District reallocated resources to incorporate a virtual learning and working environment for students and employees; personal protective equipment; electronic devices; preventive disinfectant cleaning; delivery of curriculum materials for elementary students without a device, premium pay for non-exempt employees and continuation of salary payments to substitutes and temporary employees. The cost for a period of three and half months was approximately \$5.5 million.

Table II  
El Paso Independent School District  
**Statement of Activities**  
(in millions of dollars)

<b><u>Governmental Activities</u></b>	<u>2020</u>	<u>2019</u>	<u>Variance</u>	<u>% Change</u>
<b>Revenues</b>				
<b><u>Program Revenues</u></b>				
Charges for Services	\$4.7	\$6.1	(\$1.4)	(23.0)%
Operating Grants and Contributions	169.4	152.1	17.3	11.4%
Sub-Total	174.1	158.2	15.9	10.1%
<b><u>General Revenues</u></b>				
Property Taxes	211.1	211.2	(0.1)	0.0%
State Aid-Formula Grants	316.7	285.5	31.2	10.9%
Investment Earnings	10.2	11.0	(0.8)	(7.3)%
Miscellaneous	1.6	1.6	0.0	0.0%
Sub-Total	539.6	509.4	30.2	5.9%
<b>Total Revenues</b>	<b>713.7</b>	<b>667.6</b>	<b>46.1</b>	<b>6.9%</b>
<b>Expenses</b>				
Instruction and Instructional Related	427.3	400.4	26.9	6.7%
Instructional Leadership/School Administration	52.1	48.5	3.6	7.4%
Guidance, Social Work, Health, Transportation	57.1	54.3	2.8	5.2%
Food Services	31.4	31.5	(0.1)	(0.3)%
Extracurricular Activities	14.2	14.9	(0.7)	(4.7)%
General Administration	16.6	15.4	1.2	7.8%
Plant Maintenance, Security & Data Processing	73.5	70.8	2.7	3.8%
Community Services	1.7	1.6	0.1	6.2%
Interest & Fees on Long Term Debt	32.9	25.6	7.3	28.5%
Facilities Planning & Innovative Construction	0.4	1.2	(0.8)	(66.7)%
Tax Appraisal Charges	2.4	2.5	(0.1)	(4.0)%
<b>Total Expenses</b>	<b>709.6</b>	<b>666.7</b>	<b>42.9</b>	<b>6.4%</b>
<b>Excess Before Special Items and Transfers</b>	<b>4.1</b>	<b>0.9</b>	<b>3.2</b>	<b>355.6%</b>
Special Item – Gain (loss) on Disposal of Asset	(0.5)	1.7	(2.2)	(129.4)%
<b>Increase in Net Position</b>	<b>3.6</b>	<b>2.6</b>	<b>1.0</b>	<b>38.5%</b>
Beginning Net Position	(24.0)	(26.6)	2.6	9.8%
<b>Ending Net Position</b>	<b>(\$20.4)</b>	<b>(\$24.0)</b>	<b>\$3.6</b>	<b>15.0%</b>

## DEBT ADMINISTRATION AND CAPITAL ASSETS

### Long-Term Debt

At year-end, the District had \$1,092.8 billion in total long-term debt outstanding versus \$869.7 million at the end of 2019. Retired and refunded bonded debt was \$54.4 million, and the year-end balance was \$901.4 million in bonds payable.

On November 8, 2016, the voters in the District approved a \$668,695,577 bond election. It was the largest bond election ever approved in El Paso County. In February 2020, the District issued Unlimited Tax School Building Bonds, Series 2020 in the amount of \$197,075,000. The bonds were issued at a premium and the net proceeds from the issuance was \$218,695,577. This was the third and final bond sale authorized by election. In March 2020, the District issued Variable Rate Maintenance Tax Notes, Series 2020 in the amount of \$17,390,000. The notes were issued at a premium, and the net proceeds from the issuance was \$17,500,000. The notes will be remarketed at an initial interest rate of 2.376%, which ends on July 31, 2021.

On June 10, 2020, the District issued Unlimited Tax Refunding Bonds, Series 2020 in the amount of \$37,850,000. The bonds were issued at a premium, and refunded \$29,730,000 of the Unlimited Tax School Building Variable Rate Bonds, Series 2004B, and \$13,900,000 of the Unlimited Tax School Refunding Bonds, Series 2011. The cash savings from the refunding is \$6.9 million over 10 years.

The District has a Capital Lease to finance equipment upgrades for energy savings under a guaranteed savings performance contract. At year-end the lease with Banc of America Public Capital Corporation had a balance of \$10.8 million. The lease was refinanced on July 1, 2020. Due to interest savings, the District's General Fund will realize a savings of \$1.1 million over 14 years.

Other long-term obligations include accrued sick leave of \$11 million, 2009 Qualified School Construction (QSC) Maintenance Tax Notes of \$15.3 million, 2017 Maintenance Tax Notes of \$5.1 million, 2017 QSC Maintenance Tax Notes of \$15.3 million, and 2018 Administrative Public Facility Corporation Lease Revenue Bonds of 16.4 million. Both QSC issuances were pursuant to the authority of the American Recovery and Reinvestment Act of 2009. The 2009 QSC issuance was sold as tax credits to the bond holders, with additional supplemental interest paid by the District. The 2017 QSC Notes will receive subsidy payments from the U.S. Treasury for 90% of the interest payments. Sinking Fund deposits are made for both QSC issuances. The result of interest earnings in the sinking funds, and the federal tax provisions, is a negative net borrowing cost for both QSC issuances. The 2009 QSC Sinking Fund has a balance of \$9.2 million. The 2017 QSC Sinking Fund has a balance of \$1.3 million.

The District has aggressively managed its debt by competitive bidding to obtain the best interest rates available and by refinancing existing debt for lower rates when in the best interest of the District. The efficient management of budgets and Fund Balance has provided an adequate cash flow so that at no time has the District been short of cash when needed. No investment has been sold before its scheduled maturity date. More detailed information about the District's long-term liabilities is presented in Note IV. J through Note IV. Q of the financial statements.

#### Bond Ratings

The District's bonds presently carry an 'AAA' rating with both Fitch Ratings and Moody's. This long-term rating reflects the guaranty provided by the Texas Permanent School Fund. The underlying rating, reflecting the credit quality before considerations of the guaranty is AA by Fitch, and Aa2 by Moody's. Both ratings were affirmed in June 2020, with a stable outlook.

**Capital Assets**

The District has invested \$876.0 million, net of depreciation, in a broad range of capital assets, including land, buildings, improvements, furniture, equipment, and vehicles. This amount includes capital asset additions of \$238.7 million, depreciation expense of \$20.9 million, retirements of \$6.5 million in the past year. Fiscal year 2020 major completed projects include (in millions):

Energy Savings Program	\$10.9
Telles Academy Improvements	1.1
Coronado Agricultural Farm Water Well Development	0.6
<b>Total Major Completed Projects</b>	<b><u>\$12.6</u></b>

## El Paso Independent School District

**The District's Capital Assets**  
(in millions of dollars)

<b><u>Governmental Activities</u></b>	<b><u>2020</u></b>	<b><u>2019</u></b>	<b><u>Variance</u></b>	<b><u>Percentage Change</u></b>
Land	\$46.9	\$53.0	<b>\$ (6.1)</b>	<b>(11.5)%</b>
Land Improvements	3.2	3.2	0.0	0.0%
Buildings & Improvements	813.3	809.2	4.1	0.5%
Furniture, Equipment & Vehicles	104.8	99.2	5.6	5.6%
Capital Leases	10.9	2.4	8.5	354.2%
Construction/Software in Progress	<u>332.6</u>	<u>112.4</u>	<u>220.2</u>	195.9%
<b>Totals at Historical Cost</b>	<b>1,311.7</b>	<b>1,079.4</b>	<b>232.3</b>	<b>21.5%</b>
Total Accumulated Depreciation	<u>(435.7)</u>	<u>(415.0)</u>	<u>(20.7)</u>	5.0%
<b>Net Capital Assets</b>	<b><u>\$876.0</u></b>	<b><u>\$664.4</u></b>	<b><u>\$211.6</u></b>	<b>31.8%</b>

Additional detailed information about the District's capital assets activity is presented in Note IV.G of the Notes to the Financial Statements.

## FINANCIAL ANALYSIS OF DISTRICT'S FUNDS

### *Governmental Funds*

The District's accounting records, for general governmental operations, are maintained on a modified accrual basis as prescribed by the Financial Accountability System Resource Guide, Texas Education Agency, with the revenues being recorded when available and measureable to finance expenditures of the fiscal period. Expenditures are recorded and the fund liabilities are incurred when services or goods are received. The general governmental operations include the following major funds: General Fund, Elementary and Secondary School Emergency Relief (ESSER), and the 2016 Capital Projects Fund.

The District has established fund balance categories of non-spendable, restricted, committed, assigned, and unassigned. A more detailed explanation about the District's Fund Balance can be found in Note I.E.21 and Note IV.Z to the financial statements.

The District's total governmental fund revenues were \$689.0 million, compared to \$648.9 million in the prior year. Local revenues decreased by \$(3.6) million. State aid and grants increased by \$26.1 million and Federal Program Revenues increased by \$17.6 million. The Maintenance and Operations tax rate decreased to a compressed rate of \$1.06835, after the passage of House Bill 3. The overall tax rate decreased from \$1.31 to \$1.26835.

The District's total governmental fund expenditures for fiscal year 2020 amounted to \$892.8 million compared to \$735.5 million in 2019. Instruction, Instructional Resources, and Instructional Staff Development expenses increased by \$18.3 million, primarily due to the compensation plan approved by the Board of Trustees to maintain competitive wages for teachers and related staff. Facilities, Acquisition and Construction increased \$134.3 million primarily attributed to the construction of the 2016 Bond Projects.

The net increase of the combined fund balances of \$44.1 million was comprised of a fund balance increase of \$19.6 million in the General Fund, and an increase of \$39.3 million in the 2016 Capital Projects Fund, and a decrease of \$(14.8) million in the non-major governmental funds. The 2016 Capital Projects Fund ended the fiscal year 2020 with a fund balance of \$383.1 million. This represents an increase of \$39.3 million from fiscal year 2019 which ended at \$343.8 million. The District issued the final series of the 2016 Bond program during the current fiscal year at a premium and the net proceeds from the issuance was \$218.7 million. Current fiscal year expenditures increased to \$187.4 million as compared to \$72.5 million in fiscal year 2019, an increase of \$114.9 million. The District currently has 15 projects under construction and two projects entering the procurement phase of the project. These projects include renovations and improvements at seven high schools, as well as consolidation of current schools into renovated or newly constructed schools.

The General Fund is the primary operating fund of the District, the balance increased by \$19.6 million during the fiscal year to \$163.1. The increase in total fund balance was due to revenues exceeding expenditures by \$13.1 million, \$5.9 million in surplus real property sales, and \$17.4 million issuance for variable maintenance tax notes for the renovation of El Paso High School. Revenues came in at approximately \$5.2 million higher than the amended budget and \$32.5 million higher than the adopted budget. Local revenue was over budget due to increased tax collections. State revenue was over budget due to higher than forecasted Teacher Retirement System On-behalf benefits. Federal revenue was over budget due to increased Impact Aid revenue.

A portion of the General Fund balance is non-spendable and held as inventories for \$2.0 million. Another portion, \$30.4 million is Restricted and therefore, is legally segregated for the Maintenance Tax Notes projects and state mandated programs. Lastly, the classified Assigned General Fund balance indicates tentative plans for financial resource utilization in a future period. The District assigned a total of \$26.8 million of fund balance.

The General Fund total fund balance of \$163.1 million is equivalent to approximately 30.8% of expenditures or 73.6 days of operational expenditures in the unassigned fund balance. The unassigned fund balance of \$103.9 million minimizes the likelihood that the District would be required to enter the short-term debt market to pay for current operating expenditures.

The fund balance in the Debt Service Funds is \$43.2 million, up from \$27.2 million at the end of 2019. The Interest and Sinking tax rate for fiscal year 2020 increased from \$.14 to \$.20. The .06 cent increase was approved by taxpayers as part of the 2016 Bond Program.

***Proprietary Funds***

The Proprietary Funds are those funds which are primarily self-supporting. The District maintains three Proprietary Funds, which are all Internal Service Funds. These funds are the Print Shop, the Workers' Compensation Fund, and the Health Insurance Fund.

The Print Shop had operating loss of \$(141) thousand for the current fiscal year ending 2020. The fund closed the year with a positive total net position balance of \$443 thousand. The revenues for this fund were impacted due to the pandemic closure during FY 2020.

The Workers' Compensation Fund experienced an operating income of \$1.1 million for the year ending June 30, 2020. The net position ended at \$1.6 million. The District increased the contribution from \$32 to \$36 per employee per month in 2020. The District has a liability balance of \$6.5 million to cover future claims.

The District added a self-insured health plan to the existing Health Care Clinic Program during 2020. The Health Insurance Fund had operating loss of \$(5.7) million for the current fiscal year ending 2020. The District contributed \$8 per employee per month in 2020 for the clinic program and up to \$435 per participating employee per month to the self-insured health plan. The fund ended the year with a deficit net position balance of \$(4.3) million.

***Fiduciary Funds***

Fiduciary Funds (trust and agency funds) are used to account for assets held by a government, in a trustee capacity, or as an agent for individuals, private organizations, other governmental units, and/or other funds. The District accounts for student activity funds that are received and held by a school as agency funds. These funds have no equity and do not include revenues or expenditures of the District. The District accounts for scholarship funds and restricted donations in a trust fund.

## General Fund - Fund Balances



### Days of Operational Expenditures in Unassigned Fund Balance

<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
78.8	73.0	59.8	75.2	73.6

### Percentage of Total Fund Balance to GF Expenditures

<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
24.9%	23.0%	23.6%	28.1%	30.8%



## GENERAL FUND CURRENT YEAR BUDGETARY HIGHLIGHTS

Over the course of the year, the District revised its budget several times. The expenditure budget was increased by \$91.7 million. The largest increases in the expenditure budget were found in Function 81 – Facilities Acquisition and Construction in the amount of \$54.1 million. The increase was primarily due to costs associated with construction projects; issuance of maintenance tax notes in the amount of \$17.7 million, \$36 million in roll-forward of funds from prior year for work in progress, specifically the new central administration facility, use of fund balance for the planetarium project as well as HB3 funding for employee compensation. Function 11 – Instruction also had a significant change in expenditure budget. The increase of \$23.3 million was largely due to the passage of House Bill (HB) 3 in the 86th Legislative Session. The funding was earmarked for employee compensation, instructional materials and technology. The function also had increases to special population program allotments; Bilingual, Early Education, Career & Technical Education, and State Compensatory Education and an increase due to use of fund balance for instructional materials. Function 51 – Facilities Maintenance and Operations also saw an increase of \$4.6 million that was due to roll forward of prior year funds for maintenance related projects in the amount of \$2.6 million, HB3 funding that was allotted for employee compensation, campus improvements and use of fund balance for campus improvements. Other significant budget changes occurred in Function 13 – Curriculum and Instructional Staff Development in the amount of \$2.5 million, Function 23 – School Leadership in the amount of \$2.4 million and Function 52 – Security and Monitoring Services in the amount of \$1.2 million. The expenditure budget changes to the three functions were largely due to the influx of funding attributed to HB3, increases to special population programs and roll-forward of prior year budget for encumbered goods and services.

It is important to note that although there was an increase to the expenditure budget as noted above, a budget amendment for Federal ESSER funding was presented in June to reduce revenue and expenses by \$18.7 million. The District ended fiscal year 2020 with a three-month closure due to the pandemic. The loss of average daily attendance during the closure impacted projected revenue significantly. The Texas Education Agency implemented a statewide ADA 'Hold Harmless' waiver to assist with the loss of ADA during the district closure. The District's ADA was reduced by 2,581. The reduction to expenses was made in Function 11 - Instruction; teacher salaries were reclassified to the Federal ESSER Grant to offset the loss.

Lastly, an expenditure budget reflected a decrease of \$736 thousand in Function 53 – Data Processing Services due to a reimbursement for E-Rate transactions offset related expenses.

General Fund revenues were \$543.2 million: a positive variance of \$5.2 million over the final budget of \$538 million. Local revenues were \$2.9 million over budget due to local tax collections and interest earnings exceeding budget by \$3.4 million. State revenue was \$3.1 million under budget due to average daily attendance (ADA) coming in under forecast. The drop in ADA was due to declining enrollment. Federal revenue was \$1.2 million over budget, with Impact Aid exceeding budget by \$817 thousand, and SHARS revenue over budget by \$329 thousand.

Actual expenditures were \$55.2 million less than the appropriated budget amounts. The variances were largely due to the pandemic related District closure for the last three months of the fiscal year. The variances occurred in several areas: Instruction - \$2 million were unexpended within the function as a result of student technology that was not received prior to fiscal year end. Curriculum and Instructional Staff Development - \$2.8 million, the unspent allotment was initially budgeted to employee personnel costs, travel related to professional development and contracted services that were not realized as a result of the district closure. Student Transportation - \$1.8 million was unspent due to expenses not realized as a result of the closure; specifically in the areas of supplies, fuel, overtime and capital outlay that did not arrive prior to fiscal year end. Extracurricular Activities resulted with \$2.1 million of unspent funds due to the cancellation of student travel during the last quarter of the fiscal year, cancellation of athletic events as well as delays in the manufacturing of fine arts uniforms as a result of the pandemic. Facilities Maintenance and Operations - \$3.3 million was unspent due to the pandemic related district closure that resulted in lower expenditures in personnel costs, utilities, contracted services, supplies and materials. Security and Monitoring Services – had unspent funds in the amount of \$1 million due to lower expenditure levels in the areas of personnel costs due to the cancellation of district events and contracted services. Facilities Acquisition and Construction ended the year with an unspent budget in the amount of \$39 million due to work in progress for the central administration building project, an allocation of budget due to a land sale and the issuance of Maintenance Tax Notes.

Lastly, it is the District's practice to allocate budget for personnel costs at one hundred percent of actual salary. Campuses and departments have a flexible revision policy for non-payroll budgets, but cannot transfer excess salary savings for non-salary purposes. In most cases, unspent payroll dollars are recaptured and allotted to the fund balance.

## **ECONOMIC FACTORS AND NEXT YEAR'S BUDGETS AND RATES**

The District's elected and appointed officials considered many factors when setting the fiscal year 2020-21 budget and tax rates. Because of the pandemic, the certified appraised values used for the 2021 budget were forecasted at 0% growth. The District's 2021 refined average daily attendance was budgeted at 48,666 students. This is a decrease of 1,074 from the prior year's final ADA.

The District adopted the budget on May 19, 2020. It was the second year of increased State funding provided after passage of House Bill 3 during the 86th session of the Texas Legislature. HB 3 provided comprehensive reform to the State's Foundation School Program. The most significant changes being the compression of the M&O tax rate, an increase to the basic allotment for students, and increases to program funding including weighted adjustments to the basic allotment. Because of declining student enrollment, the 2021 budget was \$3.4 million less than the 2020 amended budget. The District was able provide a general pay increase of 2% to employees for 2020-21.

The District's 2020-21 budget was based on an M&O tax rate of \$1.05475 which was compressed from the prior year rate of \$1.06835. The I&S tax rate increased from \$.20 to \$.2636 because of the 2020 bond sale. The total tax rate increased by 5 cents, from \$1.26835 to \$1.31835. The District's Board of Trustees adopted a balanced budget for fiscal year 2020-21. Both revenues and expenditures for the amended budgeted totaled \$549,805,177.

## **CONTACTING THE DISTRICT'S FINANCIAL MANAGEMENT**

This financial report is designed to provide our citizens, taxpayers, customers, investors and creditors with a general overview of the District's finances, and to show the District's accountability for the funding it receives. The administration believes that the El Paso Independent School District has sound financial practices. The District has financial challenges ahead such as, completing bond construction on time and within budget, increasing salaries to a competitive level, and increasing the Unassigned Fund Balance. The District is moving in the right direction both financially and educationally.

Many thanks are owed to teachers, campus administrators, support staff, the District's elected and appointed officials, volunteers, and central office administrators, whose purpose is to direct the resources of the District to educate our children. In many cases, these individuals have been asked to make sacrifices to assist the District in achieving its current financial position.

If you have questions about this report or need additional financial information, please contact Carmen Arrieta-Candelaria, Deputy Superintendent Finance and Operations at (915) 230-2801, or Maria D. Pineda, Executive Director, Financial Services at (915) 230-2145 or by mail at El Paso Independent School District, 6531 Boeing Drive, El Paso, Texas, 79925.

*The El Paso Independent School District does not discriminate in its educational programs or employment practices on the basis of race, color, age, sex, religion, national origin, marital status, citizenship, military status, disability, genetic information, gender stereotyping and perceived sexuality, or on any other basis prohibited by law. Inquiries concerning the application of Titles VI, VII, IX, and Section 504 may be referred to the District compliance officer, Patricia Cortez, at 230-2033; Section 504 inquiries regarding students may be referred to Kelly Ball at 230-2856.*

*El Distrito Escolar Independiente de El Paso no discrimina en los programas de educación o en prácticas de empleo usando el criterio de raza, color, edad, sexo, religión, origen nacional, estado civil, ciudadanía, estado militar, discapacidad, información genética, estereotipo sexual o sexualidad percibida, u otra práctica prohibida por la ley. Preguntas acerca de la aplicación del título VI, VII o IX, y la Sección 504 pueden ser referidas al oficial del distrito, Patricia Cortez al 230-2033; preguntas sobre 504 tocante a estudiantes pueden ser referidas a Kelly Ball al 230-2856.*

**BASIC FINANCIAL STATEMENTS**

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF NET POSITION  
JUNE 30, 2020

Data Control Codes	Primary Government
	Governmental Activities
<b>ASSETS</b>	
1110 Cash and Cash Equivalents	\$ 602,103,900
1120 Current Investments	1,080,849
1220 Property Taxes - Delinquent	16,177,365
1230 Allowance for Uncollectible Taxes	(8,398,000)
1240 Due from Other Governments	135,930,288
1250 Accrued Interest	329,877
1290 Other Receivables, Net	509,490
1300 Inventories	2,003,184
1410 Prepayments	329,142
Capital Assets:	
1510 Land	46,862,933
1520 Buildings, Net	458,880,750
1530 Furniture and Equipment, Net	24,625,691
1540 Land Improvements, Net	2,150,946
1550 Leased Property Under Capital Leases, Net	10,859,636
1580 Construction and Technology in Progress	332,567,922
1800 Restricted Assets	50,729
1990 Long Term Investments	19,070,163
1000 Total Assets	1,645,134,865
<b>DEFERRED OUTFLOWS OF RESOURCES</b>	
1701 Deferred Charge for Refunding	14,812,569
1702 Deferred Outflow for Asset Retirement Obligation	1,303,218
1705 Deferred Outflow Related to TRS Pension	76,226,687
1706 Deferred Outflow Related to TRS OPEB	25,332,967
1700 Total Deferred Outflows of Resources	117,675,441

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF NET POSITION  
JUNE 30, 2020

Data Control Codes	Primary Government
	Governmental Activities
<b>LIABILITIES</b>	
2110 Accounts Payable	6,479,872
2140 Interest Payable	13,286,581
2150 Payroll Deductions and Withholdings	6,369,327
2160 Accrued Wages Payable	54,790,496
2200 Accrued Expenses	45,835,088
2300 Unearned Revenue	35,655,003
Noncurrent Liabilities:	
2501 Due Within One Year	28,727,540
2502 Due in More Than One Year	1,064,041,441
2540 Net Pension Liability (District's Share)	165,283,406
2545 Net OPEB Liability (District's Share)	214,670,423
2000 Total Liabilities	1,635,139,177
<b>DEFERRED INFLOWS OF RESOURCES</b>	
2602 Deferred Inflow Gain on Refunding	1,959,346
2605 Deferred Inflow Related to TRS Pension	38,871,857
2606 Deferred Inflow Related to TRS OPEB	107,236,945
2600 Total Deferred Inflows of Resources	148,068,148
<b>NET POSITION</b>	
3200 Net Investment in Capital Assets	226,302,538
3820 Restricted for Federal and State Programs	11,967,284
3850 Restricted for Debt Service	20,080,292
3870 Restricted for Campus Activities	2,088,188
3890 Restricted for Other Purposes	10,718,116
3900 Unrestricted	(291,553,437)
3000 Total Net Position	\$ (20,397,019)

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF ACTIVITIES  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	1	Program Revenues		Net (Expense) Revenue and Changes in Net Position
		3	4	
		Charges for	Operating	Primary Gov.
	Expenses	Services	Grants and Contributions	Governmental Activities
<b>Primary Government:</b>				
GOVERNMENTAL ACTIVITIES:				
11 Instruction	\$ 388,245,164	\$ 627,777	\$ 83,900,371	\$ (303,717,016)
12 Instructional Resources and Media Services	9,319,675	-	1,155,231	(8,164,444)
13 Curriculum and Instructional Staff Development	29,732,085	-	10,498,590	(19,233,495)
21 Instructional Leadership	7,277,689	-	2,193,665	(5,084,024)
23 School Leadership	44,807,286	-	5,408,409	(39,398,877)
31 Guidance, Counseling and Evaluation Services	29,929,444	-	9,486,050	(20,443,394)
32 Social Work Services	5,380,943	-	1,030,331	(4,350,612)
33 Health Services	8,088,656	-	10,419,633	2,330,977
34 Student (Pupil) Transportation	13,735,500	40,169	1,839,967	(11,855,364)
35 Food Services	31,384,843	2,419,077	27,445,978	(1,519,788)
36 Extracurricular Activities	14,230,020	1,039,129	1,099,852	(12,091,039)
41 General Administration	16,551,220	470,971	2,530,997	(13,549,252)
51 Facilities Maintenance and Operations	56,652,493	85,386	4,703,554	(51,863,553)
52 Security and Monitoring Services	7,656,982	-	850,492	(6,806,490)
53 Data Processing Services	9,208,439	-	1,093,017	(8,115,422)
61 Community Services	1,713,658	-	1,467,044	(246,614)
72 Interest and Fees on Long-Term Debt	30,395,327	-	3,649,604	(26,745,723)
73 Debt Service - Bond Issuance Cost and Fees	2,515,677	-	-	(2,515,677)
81 Facilities Planning and Innovative Construction	369,850	-	668,011	298,161
99 Other Intergovernmental Charges	2,388,693	-	-	(2,388,693)
[TP] TOTAL PRIMARY GOVERNMENT:	\$ 709,583,644	\$ 4,682,509	\$ 169,440,796	(535,460,339)

Data Control Codes	General Revenues: Taxes:		
MT	Property Taxes, Levied for General Purposes		177,616,119
DT	Property Taxes, Levied for Debt Service		33,496,929
SF	State Aid - Formula Grants		316,739,977
IE	Investment Earnings		10,170,641
MI	Miscellaneous Local and Intermediate Revenue		1,552,514
S2	Special Item - Loss on Sale of Assets		(552,792)
TR	Total General Revenues & Special Items		539,023,388
CN	Change in Net Position		3,563,049
NB	Net Position - Beginning		(23,960,068)
NE	Net Position - Ending		\$ (20,397,019)

The notes to the financial statements are an integral part of this statement.

**GOVERNMENTAL FUND FINANCIAL STATEMENTS**

EL PASO INDEPENDENT SCHOOL DISTRICT  
BALANCE SHEET  
GOVERNMENTAL FUNDS  
JUNE 30, 2020

Data Control Codes	General Fund	ESSER -School Emergency Relief	2016 Capital Projects
<b>ASSETS</b>			
1110 Cash and Cash Equivalents	\$ 140,432,003	\$ -	\$ 401,002,379
1120 Investments - Current	1,080,849	-	-
1220 Property Taxes - Delinquent	13,868,377	-	-
1230 Allowance for Uncollectible Taxes	(7,200,000)	-	-
1240 Due from Other Governments	105,021,788	18,703,462	-
1250 Accrued Interest	19,825	-	164,687
1260 Due from Other Funds	25,221,882	-	124,567
1290 Other Receivables	391,560	-	-
1300 Inventories	2,003,184	-	-
1800 Restricted Assets	-	-	-
1900 Long Term Investments	-	-	8,548,141
1000 Total Assets	<u>\$ 280,839,468</u>	<u>\$ 18,703,462</u>	<u>\$ 409,839,774</u>
<b>LIABILITIES</b>			
2110 Accounts Payable	\$ 2,578,208	\$ -	\$ 751,022
2150 Payroll Deductions and Withholdings Payable	6,369,327	-	-
2160 Accrued Wages Payable	50,009,890	-	150
2170 Due to Other Funds	12,703,977	18,703,462	-
2200 Accrued Expenditures	6,974,755	-	25,965,639
2300 Unearned Revenue	33,766,382	-	-
2000 Total Liabilities	<u>112,402,539</u>	<u>18,703,462</u>	<u>26,716,811</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>			
2601 Unavailable Revenue - Property Taxes	5,323,721	-	-
2600 Total Deferred Inflows of Resources	<u>5,323,721</u>	<u>-</u>	<u>-</u>
<b>FUND BALANCES</b>			
Nonspendable Fund Balance:			
3410 Inventories	2,003,184	-	-
Restricted Fund Balance:			
3450 Federal or State Funds Grant Restriction	-	-	-
3470 Capital Acquisition and Contractual Obligation	23,944,243	-	383,122,963
3480 Retirement of Long-Term Debt	-	-	-
3490 Other Restricted Fund Balance	6,465,141	-	-
Assigned Fund Balance:			
3550 Construction	16,530,480	-	-
3570 Capital Expenditures for Equipment	3,500,000	-	-
3590 Other Assigned Fund Balance	6,766,039	-	-
3600 Unassigned Fund Balance	103,904,121	-	-
3000 Total Fund Balances	<u>163,113,208</u>	<u>-</u>	<u>383,122,963</u>
4000 Total Liabilities, Deferred Inflows & Fund Balances	<u>\$ 280,839,468</u>	<u>\$ 18,703,462</u>	<u>\$ 409,839,774</u>

The notes to the financial statements are an integral part of this statement.



# Exhibit 16

EXHIBIT C-1

		Total	
Other		Governmental	
Funds		Funds	
\$	52,595,094	\$	594,029,476
	-		1,080,849
	2,308,988		16,177,365
	(1,198,000)		(8,398,000)
	12,205,038		135,930,288
	145,365		329,877
	12,109,768		37,456,217
	117,930		509,490
	-		2,003,184
	50,729		50,729
	10,522,022		19,070,163
\$	88,856,934	\$	798,239,638
\$	2,172,300	\$	5,501,530
	-		6,369,327
	4,779,349		54,789,389
	5,586,303		36,993,742
	3,985,567		36,925,961
	1,888,621		35,655,003
	18,412,140		176,234,952
	863,981		6,187,702
	863,981		6,187,702
	-		2,003,184
	11,967,284		11,967,284
	12,240,068		419,307,274
	32,567,157		32,567,157
	12,806,304		19,271,445
	-		16,530,480
	-		3,500,000
	-		6,766,039
	-		103,904,121
	69,580,813		615,816,984
\$	88,856,934	\$	798,239,638

EL PASO INDEPENDENT SCHOOL DISTRICT  
RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET TO THE  
STATEMENT OF NET POSITION  
JUNE 30, 2020

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<b>Total Fund Balances - Governmental Funds</b>	<b>\$ 615,816,984</b>
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**Amounts reported for governmental activities in the statement of net position are different because:**

Capital assets of \$1,311,393,169 net of accumulated depreciation of (\$435,458,089), less assets held in internal service funds are not financial resources, and therefore, are not reported as assets in governmental funds.	875,935,080
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Property taxes are not available to pay for the current period's expenditures and therefore are deferred in the funds.	6,187,702
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Prepaid Insurance amortization is not reported in the fund financial statement but is reported as part of the statement of net position.	329,142
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Internal service funds are used by the District's management to charge the costs of certain activities, such as the print shop, worker's compensation, and health insurance, to the other funds. The assets and liabilities of the internal service funds are included in governmental activities.	(2,263,829)
--	-------------

Long-term liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported as liabilities in the funds:	(1,092,768,981)
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- Bonds Payable (\$901,446,571)
- Premiums on Bonds Payable (\$92,102,050)
- Lease Revenue Bonds Payable (\$16,385,000)
- Premium on Lease Revenue Bonds Payable (\$322,280)
- Accretion Payable (\$5,778,786)
- Lease Purchases Payable (\$10,832,688)
- Maintenance Tax Notes Payable (\$53,075,000)
- Premiums on Maintenance Tax Notes Payable (\$560,245)
- Asset Retirement Obligation (\$1,303,218)
- Accumulated Unpaid Leave Benefits (\$10,963,143)

Accrued interest is not due and payable in the current period and therefore is not reported as a liability in the governmental funds.	(13,286,581)
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Deferred outflows for the Asset Retirement Obligation are not reported in the funds but are considered deferred outflows in the statement of net position.	1,303,218
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Deferred gains and losses on the refunding of bonds are not reported in the funds but are considered deferred outflows and inflows in the statement of net position. The Deferred Charge for Refundings is \$14,812,569 as of June 30, 2020, and the Deferred Gain on Refunding is (\$1,959,346) as of June 30, 2020.	12,853,223
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Included in the items related to debt is the recognition of the District's proportionate share of pension liability required by GASB 68:	(127,928,576)
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- Net Pension liability (\$165,283,406)
- Deferred Outflow Related to TRS Pension \$76,226,687
- Deferred Inflow Related to TRS Pension (\$38,871,857)

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET TO THE  
STATEMENT OF NET POSITION  
JUNE 30, 2020

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Included in the items related to debt is the recognition of the District's proportionate share of the	(296,574,401)
Net OPEB liability required by GASB 75:	
- Net OPEB liability (\$214,670,423)	
- Deferred Outflow Related to TRS OPEB \$25,332,967	
- Deferred Inflow Related to TRS OPEB (\$107,236,945)	
<b>Net Position of Governmental Activities</b>	<u><u>\$ (20,397,019)</u></u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES  
GOVERNMENTAL FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	General Fund	ESSER -School Emergency Relief	2016 Capital Projects
REVENUES:			
5700 Total Local and Intermediate Sources	\$ 182,557,785	\$ -	\$ 6,379,596
5800 State Program Revenues	344,977,633	-	-
5900 Federal Program Revenues	15,626,204	18,703,462	-
5020 Total Revenues	543,161,622	18,703,462	6,379,596
EXPENDITURES:			
Current:			
0011 Instruction	301,506,233	18,703,462	-
0012 Instructional Resources and Media Services	8,156,538	-	-
0013 Curriculum and Instructional Staff Development	17,783,177	-	-
0021 Instructional Leadership	4,717,523	-	-
0023 School Leadership	38,472,567	-	-
0031 Guidance, Counseling, and Evaluation Services	18,784,445	-	-
0032 Social Work Services	4,260,325	-	-
0033 Health Services	6,855,312	-	-
0034 Student (Pupil) Transportation	11,951,720	-	2,028,173
0035 Food Services	-	-	-
0036 Extracurricular Activities	12,460,160	-	-
0041 General Administration	14,010,740	-	1,027,488
0051 Facilities Maintenance and Operations	51,373,438	-	-
0052 Security and Monitoring Services	7,143,233	-	8,742
0053 Data Processing Services	7,766,681	-	533,132
0061 Community Services	36,112	-	-
Debt Service:			
0071 Principal on Long-Term Debt	599,362	-	-
0072 Interest on Long-Term Debt	1,551,808	-	-
0073 Bond Issuance Cost and Fees	232,687	-	1,695,137
Capital Outlay:			
0081 Facilities Acquisition and Construction	20,047,310	-	182,193,626
Intergovernmental:			
0099 Other Intergovernmental Charges	2,388,693	-	-
6030 Total Expenditures	530,098,064	18,703,462	187,486,298
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	13,063,558	-	(181,106,702)
OTHER FINANCING SOURCES (USES):			
7911 Capital Related Debt Issued	17,390,000	-	197,075,000
7912 Sale of Real and Personal Property	5,890,191	-	-
7915 Transfers In	-	-	-
7916 Premium or Discount on Issuance of Bonds	331,453	-	23,315,714
8911 Transfers Out (Use)	(16,811,267)	-	-
8949 Other (Uses)	(312,761)	-	-
7080 Total Other Financing Sources (Uses)	6,487,616	-	220,390,714
1200 Net Change in Fund Balances	19,551,174	-	39,284,012
0100 Fund Balance - July 1 (Beginning)	143,562,034	-	343,838,951
3000 Fund Balance - June 30 (Ending)	\$ 163,113,208	\$ -	\$ 383,122,963

The notes to the financial statements are an integral part of this statement.

# Exhibit 16

EXHIBIT C-3

		Total	
Other		Governmental	
Funds		Funds	
\$	38,439,309	\$	227,376,690
	11,113,942		356,091,575
	71,168,779		105,498,445
	120,722,030		688,966,710
	26,468,145		346,677,840
	271,669		8,428,207
	9,420,025		27,203,202
	1,772,791		6,490,314
	1,116,995		39,589,562
	7,343,887		26,128,332
	768,329		5,028,654
	213,158		7,068,470
	549,350		14,529,243
	28,611,788		28,611,788
	504,618		12,964,778
	-		15,038,228
	1,440,664		52,814,102
	73,975		7,225,950
	381,145		8,680,958
	1,467,044		1,503,156
	10,728,593		11,327,955
	31,342,274		32,894,082
	587,853		2,515,677
	33,461,994		235,702,930
	-		2,388,693
	156,524,297		892,812,121
	(35,802,267)		(203,845,411)
	37,850,000		252,315,000
	-		5,890,191
	16,811,267		16,811,267
	10,549,091		34,196,258
	-		(16,811,267)
	(44,183,386)		(44,496,147)
	21,026,972		247,905,302
	(14,775,295)		44,059,891
	84,356,108		571,757,093
\$	69,580,813	\$	615,816,984

EL PASO INDEPENDENT SCHOOL DISTRICT  
RECONCILIATION OF THE GOVERNMENTAL FUNDS STATEMENT OF REVENUES, EXPENDITURES,  
AND CHANGES IN FUND BALANCES TO THE STATEMENT OF ACTIVITIES  
FOR THE YEAR ENDED JUNE 30, 2020

<b>Total Net Change in Fund Balances - Governmental Funds</b>	\$	44,059,891
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**Amounts reported for governmental activities in the statement of activities are different due to the following:**

Governmental funds report capital outlays as expenditures. However, in the statement of activities, the cost of assets is allocated over their estimated useful lives as depreciation expense. Thus the cost of current year outlays is removed from expense and depreciation is added to expense net of Internal Service Fund Activity:		211,377,818
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- Additions to Land \$309,777
- Additions to Construction in Progress \$235,049,348
- Additions to Software in Progress \$2,719
- Additions to Furniture and Equipment \$1,059,930
- Additions to Vehicles \$2,295,853
- Disposal of Assets (\$6,467,442)
- Adjustments \$20,393
- Depreciation Expense (\$20,892,760)

Repayment of principal is an expenditure in the governmental funds, but the repayment reduces long-term liabilities in the statement of net position. Proceeds from the sale of bonds is a source of financing in the governmental funds, but the statement of net position recognizes it as an increase in the long-term liabilities. The changes in long term liabilities for the fiscal year consisted of the following:		(223,062,322)
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- Net Change in Bonds Payable (\$180,566,407)
- Net Change in Premiums on Bonds and Maintenance Tax Notes (\$27,528,923)
- Net Change in Premium on Lease Revenue Bonds Payable \$14,231
- Net Change in Accretion Payable \$675,451
- Net Change in Lease Purchase Payable \$379,362
- Net Change in Due to Taxpayers \$360,990
- Net Change in Accumulated Leave Benefits \$772,974
- Net Change in Maintenance Tax Notes (\$17,170,000)

Deferred outflows and inflows of gains and losses on debt refundings are amortized over the term of the bonds in the statement activities but are expensed in the year incurred in governmental funds:		(2,799,785)
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- Net Deferred Charge for Refunding (\$1,197,711)
- Net Deferred Inflow Gain on Refunding (\$1,602,074)

Property taxes that will not be collected until after the District's fiscal year end are not considered "available" revenues and are deferred in the governmental funds. The change in deferred tax revenues, net of allowance for bad debt, are recognized in the statement of activities.		788,116
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Interest on long-term debt in the statement of activities differs from the amount reported in the governmental funds because interest is recognized as an expenditure in the funds when it is due, and thus, requires the use of current financial resources. In the statement of activities, however interest expense is recognized as the interest accrues, regardless of when it is due.		(1,553,320)
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Prepaid insurance amortization is not reported in the fund financial statements. The net change in prepaid insurance is reported in the statement of activities.		38,383
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The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
 RECONCILIATION OF THE GOVERNMENTAL FUNDS STATEMENT OF REVENUES, EXPENDITURES,  
 AND CHANGES IN FUND BALANCES TO THE STATEMENT OF ACTIVITIES  
 FOR THE YEAR ENDED JUNE 30, 2020

Internal service funds are used by management to charge the costs of certain activities, such as print shop, workers' compensation, health insurance, and health clinics, to individual funds. The net revenue (expense) of the internal service funds is reported with governmental activities.	(4,605,716)
--	-------------

GASB 68 required that certain plan expenditures be de-expended and recorded as deferred resource outflows. These contributions made after the measurement date of the plan caused the change in ending net position to increase by \$10,516,021. Contributions made before the measurement date and during the previous fiscal year were also expended and recorded as a reduction in net pension liability. This caused a decrease in net position totaling (\$9,337,582). Finally, the proportionate share of the TRS pension expense on the plan as a whole had to be recorded. The net pension expense decreased the change in net position by (\$21,196,196). The net result is a decrease in the change in net position.	(20,017,757)
--	--------------

GASB 75 required that certain plan expenditures be de-expended and recorded as deferred resource outflows. These contributions made after the measurement date of the plan caused the change in ending net position to increase by \$2,834,204. Contributions made before the measurement date and during the previous fiscal year were also expended and recorded as a reduction in net OPEB liability. This caused a decrease in net position totaling (\$2,693,326). Finally, the proportionate share of the TRS-Care OPEB expense on the plan as a whole had to be recorded. The net pension expense decreased the change in net position by (\$803,137). The net result is a decrease in the change in net position.	(662,259)
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**Change in Net Position of Governmental Activities**

	<u><u>\$ 3,563,049</u></u>
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**PROPRIETARY FUND FINANCIAL STATEMENTS**

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF NET POSITION  
PROPRIETARY FUNDS  
JUNE 30, 2020

	Governmental Activities -
	Total Internal Service Funds
<hr/>	
ASSETS	
Current Assets:	
Cash and Cash Equivalents	\$ 8,074,424
Due from Other Funds	469,642
Total Current Assets	<u>8,544,066</u>
Noncurrent Assets:	
Capital Assets:	
Furniture and Equipment	225,131
Depreciation on Furniture and Equipment	<u>(212,333)</u>
Total Noncurrent Assets	<u>12,798</u>
Total Assets	<u>8,556,864</u>
LIABILITIES	
Current Liabilities:	
Accounts Payable	978,342
Accrued Wages Payable	1,107
Due to Other Funds	932,117
Accrued Expenses	<u>8,909,127</u>
Total Liabilities	<u>10,820,693</u>
NET POSITION	
Net Investment in Capital Assets	12,798
Unrestricted Net Position	<u>(2,276,627)</u>
Total Net Position	<u><u>\$ (2,263,829)</u></u>

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION  
PROPRIETARY FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

	Governmental Activities -
	Total Internal Service Funds
<hr/>	
OPERATING REVENUES:	
Local and Intermediate Sources	\$ 31,187,573
Total Operating Revenues	<u>31,187,573</u>
OPERATING EXPENSES:	
Payroll Costs	32,694,991
Professional and Contracted Services	3,033,646
Supplies and Materials	114,098
Other Operating Costs	123,508
Depreciation Expense	6,270
Total Operating Expenses	<u>35,972,513</u>
Operating Income (Loss)	<u>(4,784,940)</u>
NONOPERATING REVENUES (EXPENSES):	
Earnings from Temporary Deposits & Investments	<u>179,224</u>
Total Nonoperating Revenues (Expenses)	<u>179,224</u>
Transfer In	1,000,000
Transfers Out	<u>(1,000,000)</u>
Change in Net Position	<u>(4,605,716)</u>
Total Net Position - July 1 (Beginning)	<u>2,341,887</u>
Total Net Position - June 30 (Ending)	<u><u>\$ (2,263,829)</u></u>

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF CASH FLOWS  
PROPRIETARY FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

	Governmental Activities -
	Total Internal Service Funds
<u>Cash Flows from Operating Activities:</u>	
Cash Received from User Charges	\$ 56,085
Cash Received from Assessments - Other Funds	31,265,396
Cash Payments to Employees for Services	(2,157,408)
Cash Payments for Insurance Claims	(28,151,682)
Cash Payments for Suppliers	(2,565,628)
Cash Payments for Other Operating Expenses	(123,508)
Net Cash Used for Operating Activities	(1,676,745)
<u>Cash Flows from Non-Capital Financing Activities:</u>	
Operating Transfer (Out)	(1,000,000)
Operating Transfer In	1,000,000
Net Cash Provided by Non-Capital Financing Activities	-
<u>Cash Flows from Investing Activities:</u>	
Interest and Dividends on Investments	179,224
Net Cash Provided by Investing Activities	179,224
Net Decrease in Cash and Cash Equivalents	(1,497,521)
Cash and Cash Equivalents at Beginning of Year	9,571,945
Cash and Cash Equivalents at End of Year	\$ 8,074,424
<u>Reconciliation of Operating Income (Loss) to Net Cash</u>	
<u>Used for Operating Activities:</u>	
Operating Income (Loss):	\$ (4,784,940)
Adjustments to Reconcile Operating Income to Net Cash Used for Operating Activities:	
Depreciation	6,270
Effect of Increases and Decreases in Current Assets and Liabilities:	
Decrease (increase) in Due from Other Funds	96,376
Decrease (increase) in Receivables	1,160
Increase (decrease) in Accounts Payable	765,794
Increase (decrease) in Accrued Wages Payable	(112)
Increase (decrease) in Due to Other Funds	829,603
Increase (decrease) in Accrued Expenses	1,409,104
Net Cash Used for Operating Activities	\$ (1,676,745)

The notes to the financial statements are an integral part of this statement.

**FIDUCIARY FUND FINANCIAL STATEMENTS**

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF FIDUCIARY NET POSITION  
FIDUCIARY FUNDS  
JUNE 30, 2020

	Private Purpose Trust Funds	Agency Fund
<b>ASSETS</b>		
Cash and Cash Equivalents	\$ -	\$ 2,734,552
Other Receivables	-	43,890
Restricted Assets	421,705	-
Total Assets	<u>421,705</u>	<u>\$ 2,778,442</u>
<b>LIABILITIES</b>		
Accounts Payable	-	\$ 43,890
Due to Student Groups	-	2,734,552
Total Liabilities	<u>-</u>	<u>\$ 2,778,442</u>
<b>NET POSITION</b>		
Restricted for Other Purposes	<u>421,705</u>	
Total Net Position	<u>\$ 421,705</u>	

The notes to the financial statements are an integral part of this statement.

EL PASO INDEPENDENT SCHOOL DISTRICT  
STATEMENT OF CHANGES IN FIDUCIARY FUND NET POSITION  
FIDUCIARY FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

	Private Purpose Trust Funds
<b>ADDITIONS:</b>	
Earnings from Temporary Deposits	\$ 6,369
Contributions, Gifts and Donations	23,550
Miscellaneous Additions	1,500
Total Additions	<u>31,419</u>
<b>DEDUCTIONS:</b>	
Supplies and Materials	57,501
Other Deductions	8,558
Total Deductions	<u>66,059</u>
Change in Fiduciary Net Position	(34,640)
Total Net Position - July 1 (Beginning)	<u>456,345</u>
Total Net Position - June 30 (Ending)	<u><u>\$ 421,705</u></u>

The notes to the financial statements are an integral part of this statement.

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

El Paso Independent School District (the "District") is a public educational agency operating under the applicable laws and regulations of the State of Texas. It is governed by a seven-member Board of Trustees (the "Board") elected by registered voters of the District. The District prepares its basic financial statements in conformity with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board (GASB), and it complies with the requirements of the appropriate version of Texas Education Agency's **Financial Accountability System Resource Guide** (the "Resource Guide") and the requirements of contracts and grants of agencies from which it receives funds.

**A. Reporting Entity**

The Board of Trustees (the "Board") is elected by the public. It has the authority to make decisions, appoint administrators and managers, and significantly influence operations. It also has the primary accountability for fiscal matters. The District is not included in any other governmental "reporting entity" as defined by the Governmental Accounting Standards Board (GASB).

In accordance with Governmental Accounting Standards Board, a financial reporting entity consists of the primary government and its component units. Component units are legally separate organizations for which the elected officials of the District are financially accountable, or for which the relationship to the District is such that exclusion would cause the District's financial statements to be misleading or incomplete. Discretely presented component units are reported in a separate column in the basic financial statements to emphasize they are legally separate from the school district. Blended component units, although a legally separate entity, are in substance a part of the District's operations, and thus the data is combined with data of the primary government.

The criteria used to determine whether an organization is a component unit of the District includes: financial accountability of the District for the component unit, whether the District appoints a voting majority of the entity's board, the ability to impose the District's will on the component unit, fiscal dependency criterion, if it is a financial benefit to or burden to the District, and whether services are provided entirely or almost entirely to the District.

On February 17, 2015, the District approved a Resolution authorizing the formation of the El Paso Independent School District Administrative Public Facility Corporation (Public Facility Corporation). The Public Facility Corporation is a nonprofit public corporation organized exclusively to act on behalf of the District to finance, refinance, or provide the costs of certain public facilities.

For financial reporting purposes, the Public Facility Corporation is included as a blended component unit in the operations and activities of the District. The criteria used to include the Public Facility Corporation as a blended component unit of the District include: the District appoints a voting majority of the Public Facility Corporation's governing body, the District is able to impose its will on the Public Facility Corporation, and the Public Facility Corporation serves the District exclusively as a financing vehicle for capital projects. The Public Facility Corporation's data is reported as a capital projects fund (Fund 690) and is included in the other funds column of the governmental funds financial statements.

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

For financial reporting purposes, the EPISD Education Foundation is not included as a component unit of the District. The criteria above was applied to the EPISD Education Foundation and management determined it was not a component unit of the District.

**B. Government-Wide and Fund Financial Statements**

The Statement of Net Position and the Statement of Activities are government-wide financial statements. They report information on all of the District's nonfiduciary activities with most of the interfund activities removed. *Governmental activities* include programs supported primarily by taxes, state foundation funds, grants and other intergovernmental revenues.

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement category represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until that time. For pensions and OPEB, this outflow results from pension plan and OPEB contributions made after the measurement date of the net pension and OPEB liabilities and the results of differences between expected and actual economic experiences. The deferred outflows of resources related to pensions and OPEB resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net pension and OPEB liabilities in the next fiscal year. The other pension and OPEB related deferred outflows will be amortized over a systematic and rational method over a closed period.

In addition to liabilities, the statement of net position reports a separate section for deferred inflows of resources. This separate financial statement category represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. For pensions, these deferred inflows result primarily from differences between projected and actual earnings on pension plan investments. For OPEB, these deferred inflows result primarily from differences between expected and actual actuarial experiences as well as changes in actuarial assumptions. These amounts will be amortized over a systematic and rational method over a closed period.

The fiduciary net position of the Teacher Retirement System of Texas (TRS) has been determined using the flow of economic resources measurement focus and full accrual basis of accounting. This includes, for purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, and information about assets, liabilities and additions to/deductions from TRS's fiduciary net position. The Plan's fiduciary net position has been determined on the same basis as that used by the Plan. Benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The fiduciary net position of the Teacher Retirement System of Texas (TRS) TRS Care Plan has been determined using the flow of economic resources measurement focus and full accrual basis of accounting. This includes for purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to other post-employment benefits, OPEB expense, and information about assets, liabilities and additions to/deductions from TRS Care's

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

fiduciary net position. Benefit payments are recognized when due and payable in accordance with the benefit terms. There are no investments as this is a pay-as-you-go plan and all cash is held in a cash account.

The Statement of Activities demonstrates how other people or entities that participate in programs the District operates have shared in the payment of the direct costs. The "charges for services" column includes payments made by parties that purchase, use, or directly benefit from goods or services provided by a given function of the District. Examples include tuition paid by students not residing in the District, school lunch charges, athletic and extracurricular/cocurricular activities, etc. The "grants and contributions" column includes amounts paid by organizations outside the District to help meet the operational or capital requirements of a given function. Examples include grants under the Every Student Succeeds Act. If a revenue is not a program revenue, it is a general revenue used to support all of the District's functions. Taxes are always general revenues.

Interfund activities between governmental funds and between governmental and proprietary funds appear as a due to or due from on the Governmental Fund Balance Sheet and Proprietary Fund Statement of Net Position and as other financing sources and uses on the Governmental Fund Statement of Revenues, Expenditures and Changes in Fund Balance and on the Proprietary Fund Statement of Revenues, Expenses and Changes in Fund Net Position. All interfund transactions between governmental funds and between governmental and internal service funds are eliminated on the government-wide statements. The District has no interfund services provided and used between functions that would be program revenue which, would not be eliminated in the process of consolidation.

The fund financial statements report on the financial condition and results of operations for three fund categories - governmental, proprietary, and fiduciary. Since the resources in the fiduciary funds cannot be used for District operations, they are not included in the government-wide statements. The District considers some governmental funds major and reports their financial condition and results of operations in a separate column.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues result from providing goods and services in connection with a proprietary fund's principal ongoing operations; they usually come from exchange or exchange-like transactions. All other revenues are nonoperating. Operating expenses can be tied specifically to the production of goods and services, such as materials and labor and direct overhead. Other expenses are nonoperating.

**C. Measurement Focus, Basis of Accounting, and Financial Statement Presentation**

The government-wide financial statements use the economic resources measurement focus and the accrual basis of accounting, as do the proprietary fund and fiduciary fund financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Governmental fund financial statements use the current financial resources measurement focus and the modified accrual basis of accounting. With this measurement focus, current assets, deferred outflows of resources, current liabilities, deferred inflows of resources, and fund balances are included on the balance sheet. Operating statements of these funds present net increases and decreases in current assets (i.e., revenues and other financing sources and expenditures and other financing uses).

The modified accrual basis of accounting recognizes revenues in the accounting period in which they become both measurable and available, and it recognizes expenditures in the accounting period in which the fund liability is incurred, if measurable, except for unmatured interest and principal on long-term debt, which is recognized when due. The expenditures related to certain compensated absences and claims and judgments are recognized when the obligations are expected to be liquidated with expendable available financial resources. The District considers most revenues, other than property tax revenues, available if they are collectible within one year after year end. School Health and Related Services (SHARS) revenue is recognized as revenue when it is earned and when the annual Cost Report is acknowledged by the Texas Health and Human Service Commission.

Revenues from local sources consist primarily of property taxes and investment income. Property tax revenues and revenues received from the State are recognized under the "susceptible -to-accrual" concept, that is, when they are both measurable and available. The District considers them "available" if they will be collected within 60 days of the end of the fiscal year. Miscellaneous revenues are recorded as revenue when received in cash because they are generally not measurable until actually received. Investment earnings are recorded as earned, since they are both measurable and available.

Unavailable revenue from property taxes arises only under the modified accrual basis of accounting. The governmental funds report this unavailable revenue as a deferred inflow of resources and recognize revenue in the period that the amounts become available.

Grant funds are considered to be earned to the extent of expenditures made under the provisions of the grant. Accordingly, when such funds are received, they are recorded as unearned revenues until related and authorized expenditures have been made. If balances have not been expended by the end of the project period, grantors sometimes require the District to refund all or part of the unused amount.

The Proprietary Fund Types and Fiduciary Funds are accounted for on a flow of economic resources measurement focus and utilize the accrual basis of accounting. This basis of accounting recognizes revenues in the accounting period in which they are earned and become measurable and expenses in the accounting period in which they are incurred and become measurable. With this measurement focus, all assets and deferred outflows of resources, and all liabilities and deferred inflows of resources, associated with the operation of these funds are included in the fund Statement of Net Position. The fund equity is segregated into net investment in capital assets, restricted and unrestricted net position.

(Continued)

EL PASO INDEPENDENT SCHOOL DISTRICT  
NOTES TO THE BASIC FINANCIAL STATEMENTS  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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Exhibit 16

**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**D. Fund Accounting**

The District reports the following major governmental funds:

1. **The General Fund** - The general fund is the District's primary operating fund. It accounts for all financial resources except those required to be accounted for in another fund.
2. **ESSER - School Emergency Relief** - This fund is part of the Coronavirus Aid, Relief, and Economic Security (CARES) Act. It provides funds to help Local Education Agencies prevent, prepare for and respond to the COVID-19 pandemic and to the greatest extent practicable, continue to pay employees during the period of any disruptions or closures related to Coronavirus (CARES Act, Section 18003)(CFDA 84.425D).
3. **2016 Capital Projects Fund** - This fund accounts for the construction activity related to the bonds from the 2016 general election to construct, renovate, demolish, acquire, and equip school buildings in the District.

Additionally, the District reports the following fund types:

Governmental Funds:

1. **Special Revenue Funds** - The District accounts for resources restricted to specific purposes by the Board or a grantor in a special revenue fund. Most federal and some state financial assistance is accounted for in a Special Revenue Fund, and sometimes unused balances must be returned to the grantor at the close of specified project periods. The District's Food Service Fund is considered a special revenue fund since it meets the following criteria:
  - User fees are charged to supplement the National School Lunch Program (NSLP),
  - The General Fund may subsidize the Food Service Program for expenditures in excess of NSLP, and
  - Food Service fund balances are used exclusively for child nutrition program purposes.

2. **Debt Service Funds -**

2009 QSC-MTN Sinking Fund - This fund is used to account for resources accumulated to pay for principal and interest on the Qualified School Construction Maintenance Tax Notes, Series 2009.

2017 QSC-MTN Sinking Fund - This fund is used to account for resources accumulated to pay for principal and interest on the Qualified School Construction Maintenance Tax Notes, Series 2017.

(Continued)

EL PASO INDEPENDENT SCHOOL DISTRICT  
NOTES TO THE BASIC FINANCIAL STATEMENTS  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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Exhibit 16

**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Debt Service Fund - This is the main debt service fund for the District. It is used to account for resources accumulated and payments made for annual principal and interest on long-term general obligation debt of governmental funds.

**3. Capital Projects Funds -**

2008 Capital Projects Fund - This fund accounts for the construction activity related to the 2008 bonds to construct, renovate, acquire and equip school buildings in the District.

Public Facilities Corporation Capital Projects Fund - This fund is used to account for the acquisition, construction, and equipment, for a new administration office facility.

**4. Permanent Funds** - The District has no permanent funds.

Proprietary Funds:

**5. Enterprise Funds** - The District has no enterprise funds.

**6. Internal Service Funds** - These funds are used to account for goods or services provided by one department to other departments of the District on a cost reimbursement basis. The revenues and expenses related to services provided to departments within the District are accounted for in an internal service fund.

The District's Internal Service Funds are as follows:

Print Shop - This fund accounts for transactions related to print shop services provided to other departments of the District.

Workers' Compensation Fund - This fund accounts for all financial activity associated with the District's self-insured workers' compensation plan.

Health Insurance Fund - This fund accounts for all financial activity associated with the self insurance plan, which is supported principally by employer and employee contributions. Payments are then made to a third party vendor based upon the monthly invoices received. Services are available to all full-time and part-time employees.

Fiduciary Funds:

**7. Private Purpose Trust Funds** - The District accounts for donations for which the donor has stipulated that both the principal and the income may be used for purposes that benefit parties outside the District. The District has two private purpose trust funds to account for scholarships and other restricted donations.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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## I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Scholarship Trust Fund - accounts for all financial activity and donations related to scholarships to high school students, as stipulated by the donor.

Aoy Elementary School Fager Trust Fund - accounts for all financial activity related to a restricted donation for various needs of the students at Aoy Elementary School.

8. **Pension (and Other Employee Benefit) Trust Funds** - The District has no pension (and other employee benefit) trust funds.
9. **Investment Trust Funds** - The District has no investment trust funds.
10. **Agency Funds** - The District accounts for resources held for others in a custodial capacity in agency funds. The District's Agency fund is used to account for activities of student groups.

E. Other Accounting Policies

1. For purposes of the statement of cash flows for proprietary funds, the District considers highly liquid investments to be cash equivalents if they have a maturity of three months or less when purchased.
2. Investments with an original maturity greater than one year from the date of purchase are stated at fair value. If applicable, premiums and discounts on investments are amortized or accreted using the straight-line method, which approximates the interest method over the terms of the related securities.
3. The funds of the District must be deposited and invested under the terms of a contract, contents of which are set out in the **Depository Contract Law**. The depository bank places approved pledged securities for safekeeping and trust with the District's agent bank in an amount sufficient to protect District funds on a day-to-day basis during the period of the contract. The pledge of approved securities is waived only to the extent of the depository bank's dollar amount of Federal Deposit Insurance Corporation ("FDIC") insurance.
4. The **Public Funds Investment Act** (Government Code Chapter 2256) contains specific provisions in the areas of investment practices, management reports and establishment of appropriate policies. Among other things, it requires the District to adopt, implement, and publicize an investment policy. That policy must address the following areas: (1) safety of principal and liquidity, (2) portfolio diversification, (3) allowable investments, (4) acceptable risk levels, (5) expected rates of return, (6) maximum allowable stated maturity of portfolio investments, (7) maximum average dollar-weighted maturity allowed based on the stated maturity date for the portfolio, (8) investment staff quality and capabilities, (9) and bid solicitation preferences for certificates of deposit.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Statutes authorize the District to invest in (1) obligations of the U.S. Treasury, certain U.S. agencies, and the State of Texas; (2) certificates of deposit, (3) certain municipal securities, (4) money market savings accounts, (5) repurchase agreements, (6) bankers' acceptances, (7) mutual funds, (8) investment pools, (9) guaranteed investment contracts, (10) and common trust funds. The Act also requires the District to have independent auditors perform test procedures related to investment practices as provided by the Act. Management asserts that the District is in substantial compliance with the requirements of the Act and with local policies.

5. Additional policies and contractual provisions governing deposits and investments for the District are specified below:

***Credit Risk:***

Deposits - Credit risk is not applicable to deposits.

Temporary Investments (Cash Equivalents) - To limit the risk that an issuer or other counterparty to an investment will not fulfill its obligations, the District limits investments in public funds investment pools to the top ratings issued by nationally recognized statistical rating organizations (NRSROs). As of June 30, 2020, the District's investments in TexPool, TexPool Prime, Texas TERM, Texas CLASS, and LOGIC investment pools were rated AAAM, the Lone Star investment pool was rated AAAs/S1+, by Standard & Poors. The temporary investments held with US Bank Trust are invested in TexSTAR, a local government investment pool, rated AAAM by Standard & Poors.

Investments - To limit the risk that an issuer or other counterparty to an investment will not fulfill its obligations, the District limits investments in U.S. Agencies to the top ratings issued by nationally recognized statistical rating organizations (NRSROs). In addition, the Collateralized Mortgage Obligations (CMOs) and the Guaranteed Investment Contract (GIC) held by the District as of June 30, 2020, do not require disclosure of credit quality ratings since they are guaranteed or secured by the Federal Government.

***Custodial Credit Risk:***

Deposits - State law requires governmental entities to contract with financial institutions in which funds will be deposited to secure those deposits with insurance or pledged securities with a fair value equaling or exceeding the amount on deposit at the end of each business day. The pledged securities must be in the name of the governmental entity and held by the entity or its agent. Since the District has a contract that complies with this law, it has minimal custodial credit risk for deposits.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Temporary Investments (Cash Equivalents) - To limit the risk that, in the event of the failure of the counterparty to a transaction, the District will not be able to recover the value of investment or collateral securities that are in possession of an outside party, the District requires counterparties to register the securities in the name of the District and hand them over to the District or its designated agent. This includes securities in securities lending transactions. Investment pools are not categorized or exposed to custodial risk because they are not evidenced by securities that exist in physical or book-entry form.

Investments - To limit the risk that, in the event of the failure of the counterparty to a transaction, the District will not be able to recover the value of investment or collateral securities that are in possession of an outside party, the District requires counterparties to register the securities in the name of the District and hand them over to the District or its designated agent. This includes securities in securities lending transactions. All of the securities are in the District's name and held by the District or its agent.

***Concentration of Credit Risk:***

Deposits - Concentration of credit risk is not applicable to the deposits.

Temporary Investments (Cash Equivalents) - To limit the risk of loss attributed to the magnitude of a government's investment in a single issuer, the District's policy states that the portfolio must be diversified. Concentration of Credit Risk is not applicable to the investment pools since the purpose of these are to diversify the District's investment portfolio.

Investments - To limit the risk of loss attributed to the magnitude of the District's investment in a single issuer, the District's policy states that the portfolio must be diversified. The District's investments in securities are in Municipal Bonds from various entities, a Guaranteed Investment Contract (GIC), and Collateralized Mortgage Obligations (CMOs). The Municipal Bonds are approximately 1.5% of total governmental investments and the CMOs and GIC are approximately 1.7% of total governmental investments.

***Interest Rate Risk:***

Deposits - Interest rate risk is not applicable to deposits.

Temporary Investments (Cash Equivalents) - To limit the risk that changes in interest rates will adversely affect the fair value of investments, the District requires its investment portfolio for the general fund to have maturities of less than one year and a weighted average maturity of a maximum of 180 days for investments from all funds. Each pool invests in different investment instruments and each portfolio has varying maturities.

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Investments - To limit the risk that changes in interest rates will adversely affect the fair value of investments, the District requires its investment portfolio to have maturities of less than one year for the general fund and a weighted average maturity of a maximum of 180 days for all investments. As of June 30, 2020, management calculated the District's WAM for the general fund at 3 days, and the total WAM was 47 days.

***Foreign Currency Risk:***

Deposits - The District limits the risk that changes in exchange rates will adversely affect a deposit by not having any deposits denominated in a foreign currency.

Temporary Investments (Cash Equivalents) - The District is not exposed to the risk that changes in exchange rates will adversely affect the fair value of an investment as the investment pools are not denominated in a foreign currency.

Investments - The District is not exposed to the risk that changes in exchange rates will adversely affect the fair value of an investment as none of the investments are denominated in any foreign currencies.

6. The District reports inventories of supplies at weighted average cost, including consumable maintenance, instructional, office, athletic, and transportation items. Supplies are recorded as expenditures when they are consumed. Inventories of food commodities are recorded at market values supplied by the Texas Department of Agriculture. Although commodities are received at no cost, their fair market value is supplied by the Texas Department of Agriculture and recorded as inventory and unearned revenue when received. When requisitioned, inventory and unearned revenue are relieved, expenditures are charged, and revenue is recognized for an equal amount.
7. Property taxes are levied by October 1 on the assessed value listed as of the prior January 1 for all real and business personal property located in the District in conformity with Subtitle E, Texas Property Tax Code. Taxes are due on receipt of the tax bill and are delinquent if not paid before February 1 of the year following the year in which imposed. On January 31 of each year, a tax lien attaches to the property to secure the payment of all taxes, penalties, and interest ultimately imposed. Property tax revenues are considered available (1) when they become due or past due and receivable within the current period and (2) when they are expected to be collected during a 60-day period after the close of the school fiscal year.
8. Delinquent taxes are prorated between maintenance and debt service based on rates adopted for the year of the levy. Allowances for uncollectible tax receivables within the General and Debt Service Funds are based on historical experience in collecting property taxes. Uncollectible personal property taxes are periodically reviewed and written off, but the District is prohibited from writing off real property taxes without specific statutory authority from the Texas Legislature.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

9. In the government-wide financial statements and proprietary fund types in the fund financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities or proprietary fund type Statement of Net Position. Bond premiums and discounts are deferred and amortized over the life of the bonds using the straight line method and are presented as a component of non-current liabilities. Deferred charges or gains on refundings are also amortized over the life of the bonds using the straight line method and are presented as deferred outflows of resources or deferred inflows of resources. Bonds payable are reported net of the applicable bond premium or discount.

In the fund financial statements, governmental fund types recognized bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received on debt issuances are reported as other financing sources, while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

10. It is the District's policy to require vacations to be taken in the year earned and any unused days at the end of the fiscal year are generally forfeited after a six-month period. Employees are entitled to sick leave based on the category/class of employment. Sick leave is allowed to be accumulated but does not vest. Upon resignation and qualified retirement of grandfathered employees, the District pays one-half accrued sick leave in a lump-sum cash payment to each employee or his/her beneficiary or estate based on the salary or wages for the last year of employment. A liability for these amounts is reported in the governmental funds only if they have matured as a result of employee resignations and retirements, but all eligible sick leave is accrued when incurred in the government-wide financial statements.
11. Capital assets, which include land, buildings, furniture, vehicles, and equipment are reported in the governmental activities column in the government-wide financial statements. Capital assets are defined by the District as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized. The gain on disposal of assets is considered infrequent in occurrence and is reported in the governmental activities column of the government-wide financial statements as a Special Item. Major outlays for capital assets and improvements are capitalized as projects are constructed.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Capital assets of the District are depreciated using the straight line method over the following estimated useful lives:

<u>Assets</u>	<u>Years</u>
Land Improvements	10 - 50
Buildings and Building Improvements	20 - 50
Furniture and Equipment	10
Buses	10
Technology Equipment	5
Vehicles, Transportation Equipment	5 - 10

12. Since Internal Service Funds support the operations of governmental funds, they are consolidated with the governmental funds in the government-wide financial statements. The expenditures of governmental funds that create the revenues of internal service funds are eliminated to avoid "grossing up" the revenues and expenses of the District as a whole.
13. The District sponsors a self-insured plan for worker's compensation and health insurance benefits to employees. Revenues for these Internal Service Funds are received from interest on investments as well as employee contributions and District contributions on behalf of the employees. The District contributions are charged as an expenditure to the various funds where the employee's salary is charged. Expenses are comprised of claims incurred during the fiscal year, professional and contracted services, and other miscellaneous expenses.

The General Fund is contingently liable for liabilities of these funds. Fund accounting is employed internally to maintain the integrity of the self-insurance activities of the District.

14. In the fund financial statements, governmental funds report restrictions of fund balance for amounts that are not available for appropriation or are legally restricted by outside parties for use for a specific purpose. The entire fund balances in the Special Revenue, Debt Service, and Capital Projects Funds have such restrictions. Since the entire fund balance is restricted for these funds, all assets are in essence restricted for their specified purpose.
15. When the District incurs an expense for which it may use either restricted or unrestricted assets, it uses the restricted assets first whenever they will have to be returned if they are not used.
16. The Data Control Codes refer to the account code structure prescribed by TEA in the ***Financial Accountability System Resource Guide***. Texas Education Agency requires school districts to display these codes in the financial statements filed with the Agency to ensure accuracy in building a Statewide database for policy development and funding plans.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

17. In accordance with the Resource Guide, the District has adopted and installed an accounting system which meets at least the minimum requirements prescribed by the Texas State Board of Education and approved by the State Auditor. Specifically, the District's accounting system uses codes and the code structure presented in the Resource Guide. Mandatory codes are recorded in the order provided in the Resource Guide.
18. The District receives substantial amounts of funding from special revenue sources. The majority of this money is cost reimbursement to the District by the federal government or Texas Education Agency. The portion of revenue allowable for indirect cost is credited as revenue to the General Fund and as a reduction to revenue in the Special Revenue Fund, as appropriate. These indirect costs are fully allocated to function 41.
19. Preparation of these financial statements in conformity with generally accepted accounting principles requires the use of management's estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.
20. Net Position on the Statement of Net Position includes the following:

*Net investment in capital assets* - this component of net position consists of capital assets, net accumulated depreciation, reduced by the outstanding balances of bonds, notes or other borrowings that are attributable to the acquisition, construction or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt will be included in this component of net position.

*Restricted for federal and state programs* - this component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets, which are restricted by federal and state granting agencies.

*Restricted for debt service* - this component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. The assets arise from bond issuances which have constraints placed on them by the bond covenants for the purpose of future debt service payments.

*Restricted for campus activities* - this component of net position consists of restricted assets reduced by liabilities related to those assets, which are restricted transactions related to a principal's activity fund.

*Restricted for other purposes* - this component of net position consists of restricted assets which are related to the Bray Milk donation and sinking fund requirements.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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## I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

*Unrestricted net position* - this component of net position is the net amount of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

21. Fund Balance

The District may report the following fund balance categories to make the nature and extent of the constraints placed on a government's fund balances more transparent. The following classifications describe the relative strength of the spending constraints:

- **Nonspendable fund balance** - amounts that are not in spendable form (such as inventory) or are required to be maintained intact.
- **Restricted fund balance** - amounts constrained to specific purposes by their providers (such as grantors, bondholders, and higher levels of government), through constitutional provisions, or by enabling legislation.
- **Committed fund balance** - amounts constrained to specific purposes by the District itself, using its highest level of decision-making authority (i.e., Board of Trustees). These amounts are committed through a formal resolution approved by the Board. Once reported as committed, amounts cannot be used for any other purpose unless the District takes the same highest level action to remove or change the constraint.
- **Assigned fund balance** - amounts the District intends to use for a specific purpose. Intent can be expressed by the Superintendent or the Officer position as named in the local policy approved by the Board.
- **Unassigned fund balance** - amounts that are available for District operations. Positive amounts are reported only in the general fund.

The Board of Trustees establishes (and modifies or rescinds) fund balance commitments by passage of a resolution. This is typically done through adoption and amendment of the budget. A fund balance commitment is further indicated in the budget document as a commitment of the fund. Assigned fund balance is established by the Superintendent or Officer for a specific purpose, such as, the purchase of capital assets, construction, debt service, or for other purposes.

When an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available, the District considers restricted funds to have been spent first. When an expenditure is incurred for which committed, assigned, or unassigned fund balances are available, the District considers amounts to have been spent first out of committed funds, then assigned funds, and finally unassigned funds, as needed, unless the Board of Trustees has provided otherwise in their commitment or assignment actions.

(Continued)

**EL PASO INDEPENDENT SCHOOL DISTRICT**  
**NOTES TO THE BASIC FINANCIAL STATEMENTS**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

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**I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

In fiscal year 2011, the Board of Trustees adopted a targeted fund balance policy for the General Fund. The policy requires the unassigned fund balance at fiscal year end to be between 17 percent (60 days) and 25 percent (90 days) of the operating expenditures.

The District shall target a yearly minimum restricted debt service fund balance of 10 percent of annual debt service requirements on all outstanding debt issuance.

- F. The District implemented GASB Statement No. 95 Postponement of the Effective Dates of Certain Authoritative Guidance, which provides temporary relief to governments and other stakeholders in light of the COVID 19 pandemic. The objective is accomplished by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or were scheduled to become effective for periods beginning after June 15, 2018 and later.

**II. RECONCILIATION OF GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS**

- A. Explanation of Certain Differences Between the Governmental Fund Balance Sheet and the Government-Wide Statement of Net Position

Exhibit C-2 provides the reconciliation between the fund balance for total governmental funds on the governmental fund balance sheet and the net position for governmental activities as reported in the government-wide statement of net position. One element of that reconciliation explains that capital assets are not financial resources and are therefore not reported in governmental funds. In addition, long-term liabilities, including bonds payable, and the District's proportionate share of the net pension and OPEB liabilities are not due and payable in the current period and are not reported as liabilities in the funds.

- B. Explanation of Certain Differences Between the Governmental Fund Statement of Revenues, Expenditures, and Changes in Fund Balances and the Government-Wide Statement of Activities

Exhibit C-4 provides a reconciliation between the net changes in fund balance as shown on the governmental fund statement of revenues, expenditures, and changes in fund balances and the changes in net position of governmental activities as reported on the government-wide statement of activities. One element of that reconciliation explains that current year capital outlays and debt principal payments are expenditures in the fund financial statements, but should be shown as increases in capital assets and decreases in long-term debt in the government-wide statements. This adjustment affects both the net position balance and the change in net position.

Other elements of the reconciliation on Exhibit C-4 include recognizing property tax revenue considered available, recognizing accruals of interest on long-term debt and recognizing internal service fund activity. In addition, certain pension and OPEB expenditures were de-expended and the District recorded its proportionate share of the pension and OPEB expense. These adjustments are necessary to convert from the modified accrual basis of accounting to the full accrual basis of accounting.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**III. STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY****A. Budgetary Data**

The Board of Trustees adopts an "appropriated budget" for the General Fund, Debt Service Funds, and the Food Service Fund (which is included in the Special Revenue Funds). The District is required to present the adopted and final amended budgeted revenues and expenditures for each of these funds. The Board does not legally adopt a budget for the other special revenue funds since the budgets are determined by the grantor. The District compares the final amended budget to actual revenues and expenditures. The General Fund Budget report appears on Exhibit G-1 and the other two reports are Exhibit J-2 and J-3.

The following procedures are followed in establishing the budgetary data reflected in the financial statements:

1. Prior to June 19, the District prepares a budget for the next succeeding fiscal year beginning July 1. The operating budget includes proposed expenditures and the means of financing them.
2. A meeting of the Board for the purpose of adopting the proposed budget is held. A Public notice of the meeting must be posted at least ten days in advance.
3. On April 30, 2019, the budget was legally enacted through the approval of a motion by the Board. Once a budget is approved, it can only be amended at the function and fund level by approval of a majority of the members of the Board. Amendments are presented to the Board at its regular meetings. Each amendment must have Board approval. As required by law, such amendments are made before the fact, are reflected in the official minutes of the Board, and are not made after fiscal year end. Because the District has a policy of careful budgetary control, several amendments were necessary during the year.

Throughout the year various budget amendments were processed, however the following are amendments management believes were most significant in fiscal year 2020.

The general fund revenue budget increased by \$27.3 million. The passage of House Bill 3 in the 86th Legislative Session resulted in significant changes to the District's revenue; state foundation revenue increased \$43.8 million due to changes in the funding formula and special population programs, local property tax revenue decreased \$15.1 million due to tax compression, federal revenue decreased by \$1.4 million due to the E-Rate revenue adjustment.

The general fund expenditure budget was increased by \$91.7 million during FY 2020. The increase to the overall budget was largely due to the passage of House Bill 3 in the 86<sup>th</sup> Legislative Session totaling \$42.6 million. The additional funding was allotted to all functions for the purpose of employee compensation, campus improvements, instructional materials, as well as increases to special population program allotments; Bilingual, Early Education, Career & Technical Education, and State Compensatory Education. Roll-forward of funds for transactions and projects encumbered in fiscal year increased budget by \$41.3 million. The amendment impacted several functions, most notably, Function 81 - Facilities Acquisition and Construction in the amount of \$36 million, Function 51 - Facilities Maintenance and Operations

(Continued)

**EL PASO INDEPENDENT SCHOOL DISTRICT**  
**NOTES TO THE BASIC FINANCIAL STATEMENTS**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

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Exhibit 16

**III. STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY (Continued)**

in the amount of \$2.6 million and Function 11 - Instruction in the amount of \$2.6 million. An amendment for use of fund balance increased the expenditure budget by \$5.4 million for instructional materials, campus furniture and building improvements as well as construction costs related to the Planetarium building. Additionally an amendment to Facilities Acquisition and Construction in the amount of \$17.7 million was attributed to the issuance of a Maintenance Tax Note, Series 2020 for the repair and improvement of existing school facilities.

Lastly, multiple budget amendments were presented to revise expenditures resulting in a net \$15.5 million reduction of budget; land sale resulting in an increase of \$3.2 million and a reduction in the amount of \$18.7 million due to anticipated loss of average daily attendance due to the COVID pandemic.

4. The budget is managed and monitored by the Budget and External Financial Management Office at the revenue and expenditure function and object level. Budgeted amounts are as amended by the Board. All budget appropriations lapse at year end.

**IV. DETAILED NOTES ON ALL FUNDS**

**A. Deposits**

Cash at Depository Bank - At June 30, 2020, the carrying amount of the District's general fund, nonmajor governmental funds, internal service funds, and agency funds deposits (cash and interest-bearing savings accounts) were (\$4,791,713), \$448,587, (\$120,510), and \$2,734,552, respectively, and the total bank balance was \$3,541,275. The District's cash deposits at June 30, 2020, and during the year ended June 30, 2020, were fully covered by federal depository insurance or pledged collateral held by the District's agent bank in the District's name.

In addition, the following is disclosed regarding coverage of combined balances on the date of highest deposit:

- a. Depository: Wells Fargo Bank - El Paso, Texas.
- b. The highest combined balances of cash, savings, and time deposit accounts amounted to \$6,060,542 and occurred during the month of January 2020.
- c. The total amount of FDIC coverage at the time of the highest combined balance was \$500,000.
- d. The estimated market value of securities pledged as of the date of the highest combined balance on deposit was \$7,208,146.

The District also had cash at ArbiterPay and United Bank, institutions other than the depository bank. The carrying amount of the District's general fund deposits at these institutions were \$16,928 and \$355,511, respectively, at June 30, 2020. These amounts were FDIC insured up to \$250,000 each.

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****B. Temporary Investments**

The District's temporary investments included in cash and cash equivalents at June 30, 2020, are shown below at amortized cost or fair value, which approximates the value of the pool shares:

Temporary Investments	General Fund	2016 Capital Projects	Nonmajor Governmental Funds	Internal Service Funds	Total Governmental Activities
LOGIC Investment Pool**	\$ 3,709,402	\$ 100,444,771	\$ 1,090,472	\$ -	\$ 105,244,645
US Bank Trust (invest in TexSTAR)**	-	-	3,592,152	-	3,592,152
Lone Star Investment Pool**	83,721,165	119,291,491	34,569,976	-	237,582,632
Texas CLASS Investment Pool**	10,236	181,266,117	-	-	181,276,353
TexPool Investment Pool*	484,752	-	1,613,655	-	2,098,407
TexPool Prime Investment Pool*	56,701,451	-	11,280,252	8,194,934	76,176,637
Texas Term Investment Pool*	224,271	-	-	-	224,271
<b>Total</b>	<b>\$ 144,851,277</b>	<b>\$ 401,002,379</b>	<b>\$ 52,146,507</b>	<b>\$ 8,194,934</b>	<b>\$ 606,195,097</b>

\* - measured at amortized cost

\*\* - measured at fair value

In addition to the above TexPool Funds, the District also has funds invested in TexPool for the Bray Milk Trust in the National Breakfast and Lunch Program in the amount of \$50,729, the Scholarship Trust Fund in the amount of \$206,595, and the Aoy Elementary School Fager Trust Fund in the amount of \$215,110, which are shown as restricted assets.

LOGIC (Local Government Investment Cooperative) is a local government investment pool administered by Hilltop Securities and J.P.Morgan Chase. The Lone Star Investment Pool is administered by TASB's wholly owned subsidiary, First Public. The investment advisors for the pool are American Beacon Advisors and Standish Mellon Investment Managers. The custodian bank is State Street Bank of Boston. Texas Class (Texas Cooperative Liquid Assets Securities System Trust) is a pooled investment program administered by Public Trust Advisors, LLC. Texas Class is governed by the Board of Trustees which has appointed an Advisory Board composed of Participants and other persons who are qualified to advise the Trust. TexPool is a local government investment pool in the State of Texas. The State Comptroller of Public Accounts oversees TexPool. There is also a TexPool Advisory Board, composed of participants, which advises on TexPool's investment policy and approves fee increases. Texas Term is a local government investment pool which has an elected Advisory Board made up of Texas public finance officials. The investment advisor and administrator for the pool is PFM Asset Management LLC. The custodian bank is U.S. Bank National Association.

For those pools measured at amortized cost, management is not aware of the presence of any limitations or restrictions on withdrawals such as redemption notice periods, maximum transaction amounts, and the qualifying external investment pool's authority to impose liquidity fees or redemption gates.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

C. Investments

The District's investments at June 30, 2020, are shown below at fair value:

Investments	General Funds	2016 Capital Project Fund	NonMajor Governmental Funds	Investment Maturities (in years)		Weighted Average Maturity (in days)	Credit Ratings
				Less than 1 year	More than 1 year		
Repurchase Agreement invested in Collateralized Mortgage Obligations	\$ -	\$ -	\$ 9,241,946	\$ -	\$ 9,241,946	858	N/A*
Guaranteed Investment Contract	-	-	1,280,076	-	1,280,076	397	N/A*
<b>Municipal Bonds</b>							
Minnesota St Ser B	-	4,127,805	-	-	4,127,805	84	AAA
Minnesota St Ref-Ser D	-	2,103,340	-	-	2,103,340	43	AAA
Frisco TX ISD Ref	-	2,316,996	-	-	2,316,996	47	AAA
Sharyland TX ISD SchBldg	1,080,849	-	-	1,080,849	-	12	AAA
<b>Total Investments</b>	<b>\$ 1,080,849</b>	<b>\$ 8,548,141</b>	<b>\$ 10,522,022</b>	<b>\$ 1,080,849</b>	<b>\$ 19,070,163</b>		

\* U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not require disclosure of credit quality.

On February 18, 2010, the District entered into a Master Repurchase Agreement with Morgan Stanley and The Bank of New York Mellon. The parties agreed that the pricing rate used for the transactions shall be 4.00% per annum and the margin percentage shall be 102% with regard to eligible securities specified in the Repurchase Agreement. Maturity dates shall not exceed the date that the notes will be paid which is August 15, 2025. The CMOs were secured by pledged securities with an estimated fair market value of \$9,377,495 as of June 30, 2020.

On August 15, 2018, the District entered into a Guaranteed Investment Contract with Bayerische Landsbank and Wells Fargo. The parties agreed that the margin percentage shall be 102% with regard to eligible securities specific in the initial agreement. Maturity dates shall not exceed the date that the notes will be paid which is August 15, 2037. The GIC was secured by Small Business Administration (SBA) pledged securities with an estimated fair market value of \$1,355,493 as of June 30, 2020.

Because investing is not a core part of the District's mission, the District determines that the disclosures related to these investments only need to be disaggregated by major type. The District categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

The District has the following recurring fair value measurements as of June 30, 2020:

- CMOs of \$9,241,946 are valued using market closing prices under the market approach (Level 2 inputs).
- GICs of \$1,280,076 are valued using market closing prices under the market approach (Level 2 inputs)
- Municipal bonds of \$9,628,990 are valued using market closing prices under the market approach (Level 2 inputs)

**D. Receivables from Other Governments**

The District participates in a variety of federal and state programs from which it receives grants to partially or fully finance certain activities. In addition, the District receives entitlements from the State through the School Foundation and Per Capita Programs. A majority of federal grants shown below are passed through the TEA. Management has deemed that no allowance for doubtful accounts is necessary for fair presentation as there is usually no risk of uncollectibility. Amounts due from federal and state governments as of June 30, 2020, are summarized as follows:

Description	General Fund	ESSER-School Emergency Relief	Nonmajor Governmental Funds	Governmental Activities Total
State Entitlement Grants	\$ 96,889,532	\$ -	\$ -	\$ 96,889,532
SHARS	8,132,256	-	-	8,132,256
ESSER - School Emergency Relief	-	18,703,462	-	18,703,462
ESSA Title I, Part A, D, and SIP	-	-	4,980,073	4,980,073
IDEA - Part B Formula	-	-	2,886,700	2,886,700
National Breakfast & Lunch Prog.	-	-	1,558,292	1,558,292
Title IV, Part A, Student Support	-	-	571,660	571,660
EPISD Roddenberry Planetarium	-	-	502,021	502,021
Title III, Part A English Lang. Acq.	-	-	264,895	264,895
Career and Technical- Basic Grant	-	-	209,557	209,557
ESSA Title II A Supporting Eff Instr.	-	-	205,940	205,940
SSA - Regional Day School - Deaf	-	-	157,452	157,452
Military Connected Schools (DoDEA)	-	-	144,209	144,209
Truancy Prevention	-	-	143,127	143,127
COPS School Violence Prevention	-	-	132,145	132,145
Adult Education - Federal	-	-	99,508	99,508
ESSA Title I Part C Migrant	-	-	65,629	65,629
Medicaid Admin. Claim - MAC	-	-	58,187	58,187
Gateway to STEM Careers (DoDEA)	-	-	42,420	42,420
IDEA - Part B Preschool	-	-	41,332	41,332
Other Federal Grants	-	-	86,945	86,945
Other State Grants	-	-	54,946	54,946
Total	\$ 105,021,788	\$ 18,703,462	\$ 12,205,038	\$ 135,930,288

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****E. Interfund Balances and Transfers**

The interfund balances are the result of normal operations and are cleared out periodically. Management intends to pay out these balances within one year.

Interfund balances at June 30, 2020, consisted of the following amounts:

	<u>Due From Other Funds</u>	<u>Due to Other Funds</u>
General Fund:		
ESSER - School Emergency Relief	\$ 18,703,462	\$ -
2016 Capital Projects Fund	-	124,567
Nonmajor Governmental Funds	5,586,303	12,109,768
Internal Service Funds	932,117	469,642
Total General Fund	<u>25,221,882</u>	<u>12,703,977</u>
ESSER - School Emergency Relief:		
General Fund	<u>-</u>	<u>18,703,462</u>
2016 Capital Projects Fund:		
General Fund	<u>124,567</u>	<u>-</u>
Nonmajor Governmental Funds:		
General Fund	<u>12,109,768</u>	<u>5,586,303</u>
Internal Service Funds:		
General Fund	<u>469,642</u>	<u>932,117</u>
Total	<u><u>\$ 37,925,859</u></u>	<u><u>\$ 37,925,859</u></u>

Interfund transfers generally fall within two categories: (1) transfers to cover future debt service payments to comply with debt covenants, and (2) transfers to cover operating expenditures/deficits in accordance with District policy or legal requirements. Interfund transfers do not require repayment.

Interfund transfers for the year ended June 30, 2020, consisted of the following amounts:

	<u>Transfers In</u>	<u>Transfers Out</u>
General Fund:		
Nonmajor Governmental Funds	<u>\$ -</u>	<u>\$ 16,811,267</u>
Nonmajor Governmental Funds:		
General Fund	<u>16,811,267</u>	<u>-</u>
Internal Service Funds:		
Internal Service Funds	<u>1,000,000</u>	<u>1,000,000</u>
Total	<u><u>\$ 17,811,267</u></u>	<u><u>\$ 17,811,267</u></u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****F. Disaggregation of Other Receivables and Accrued Expenditures**

Other Receivables are reported at gross value. Management has determined that an allowance for doubtful accounts is not necessary for fair presentation as any amounts would not be material. Other Receivables as of June 30, 2020, consisted of the following:

	General Fund	Nonmajor Governmental Funds	Total Governmental Activities
Transportation fees	\$ 11,090	\$ -	\$ 11,090
Travel and other costs	-	9,327	9,327
Due from other Districts	55,491	-	55,491
City Tax office	168,647	30,656	199,303
Escrow balance at payoff	97,833	-	97,833
Miscellaneous other receivables	58,499	77,947	136,446
Total	<u>\$ 391,560</u>	<u>\$ 117,930</u>	<u>\$ 509,490</u>

Accrued Expenditures as of June 30, 2020, consisted of the following:

	General Fund	2016 Capital Project Fund	Nonmajor Governmental Funds	Total Governmental Funds	Internal Service Funds	Total Governmental Activities
Workers Compensation Claims	\$ -	\$ -	\$ -	\$ -	\$ 6,500,000	\$ 6,500,000
Health Insurance Claims	-	-	-	-	2,400,000	2,400,000
Professional and Contracted Services	1,392,158	-	91,740	1,483,898	9,110	1,493,008
Supplies and materials	3,480,831	150,290	215,973	3,847,094	17	3,847,111
Capital Outlay	2,053,532	25,811,454	3,670,500	31,535,486	-	31,535,486
Miscellaneous	48,234	3,895	7,354	59,483	-	59,483
Total	<u>\$ 6,974,755</u>	<u>\$ 25,965,639</u>	<u>\$ 3,985,567</u>	<u>\$ 36,925,961</u>	<u>\$ 8,909,127</u>	<u>\$ 45,835,088</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****G. Capital Asset Activity**

Capital asset activity for the District for the year ended June 30, 2020, was as follows:

	Beginning Balance	Additions	Transfers/ Adjustments	Retirements	Ending Balance
<b>Governmental Activities:</b>					
Non-depreciable assets:					
Land	\$ 52,998,381	\$ 309,777	\$ -	\$ (6,445,225)	\$ 46,862,933
Construction in progress	112,431,370	235,049,348	(14,898,906)	(22,217)	332,559,595
Technology in progress	5,608	2,719	-	-	8,327
Total non-depreciable assets	165,435,359	235,361,844	(14,898,906)	(6,467,442)	379,430,855
Depreciable assets:					
Land Improvements	3,217,971	-	-	-	3,217,971
Buildings and improvements	809,241,929	-	4,002,950	-	813,244,879
Furniture and equipment	58,553,312	1,059,930	(94,134)	(87,536)	59,431,572
Vehicles	40,679,614	2,295,853	2,447,700	(26,100)	45,397,067
Capital leases	2,447,700	-	8,448,256	-	10,895,956
Total depreciable assets	914,140,526	3,355,783	14,804,772	(113,636)	932,187,445
Less accumulated depreciation for:					
Land improvements	(958,391)	(108,634)	-	-	(1,067,025)
Buildings and improvements	(339,807,290)	(14,556,839)	-	-	(354,364,129)
Furniture and equipment	(46,159,514)	(2,934,554)	114,527	87,536	(48,892,005)
Vehicles	(25,808,189)	(3,262,683)	(2,266,171)	26,100	(31,310,943)
Capital leases	(2,266,171)	(36,320)	2,266,171	-	(36,320)
Total accumulated depreciation	(414,999,555)	(20,899,030)	114,527	113,636	(435,670,422)
Total governmental activities net capital assets	\$ 664,576,330	\$ 217,818,597	\$ 20,393	\$ (6,467,442)	\$ 875,947,878

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

Depreciation expense was charged to governmental functions as follows:

11 - Instruction	\$ 11,763,275
12 - Instructional resources and media services	330,898
13 - Curriculum development and instruction staff	477,030
21 - Instructional leadership	155,260
23 - School leadership	1,494,435
31 - Guidance, counseling and evaluation services	732,078
32 - Social work services	88,980
33 - Health services	282,239
34 - Student (pupil) transportation	493,567
35 - Food services	1,182,768
36 - Co-curricular/extracurricular activities	514,917
41 - General administration	578,530
51 - Plant maintenance and operations	2,181,187
52 - Security and monitoring services	295,159
53 - Data processing services	320,952
61 - Community services	1,485
Total depreciation expense without internal service funds	20,892,760
Depreciation on capital assets held by the District's internal service funds	6,270
Total depreciation expense	<u>\$ 20,899,030</u>

**H. Deferred Charge For Refunding**

Deferred charge on Refunded Bonds for the year ended June 30, 2020, were as follows:

Description	Beginning Balance	Deferred Charge New Issues	Amortization Recognized	Ending Balance
Series 2013	\$ 2,637,431	\$ -	\$ 217,303	\$ 2,420,128
Series 2013A	11,630	-	5,449	6,181
Series 2015	5,577,488	-	424,473	5,153,015
Series 2015A	7,783,731	-	550,486	7,233,245
Total Deferred Charge	<u>\$ 16,010,280</u>	<u>\$ -</u>	<u>\$ 1,197,711</u>	<u>\$ 14,812,569</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****I. Unearned Revenue**

Unearned revenue as of June 30, 2020, consisted of the following:

	General Fund	Nonmajor Governmental Funds	Total
Foundation School Program	\$ 33,766,382	\$ -	\$ 33,766,382
Existing Debt Allotment and Instructional Facilities Allotment	-	1,085,638	1,085,638
Army Youth Program	-	326,852	326,852
Special Education Fiscal Support	-	171,979	171,979
Textbook Allotment	-	145,662	145,662
Advanced Placement Incentives	-	79,386	79,386
CREEED	-	14,360	14,360
Mathematics Achievement Academy	-	12,533	12,533
Teens Against Tobacco Abuse	-	12,242	12,242
Other Miscellaneous	-	39,969	39,969
Total Unearned Revenue	<u>\$ 33,766,382</u>	<u>\$ 1,888,621</u>	<u>\$ 35,655,003</u>

**J. Long-Term Liabilities**

The District's long-term liabilities consist of bond indebtedness, capital leases, maintenance tax notes, lease revenue bonds, compensated absences, asset retirement obligations, net pension liability and net OPEB liability. The current requirements for bonds principal and interest expenditures are accounted for in debt service fund. Current funding requirements for capital leases, maintenance tax notes, compensated absences and asset retirement obligations is accounted for the in the general fund. Current funding requirements for lease revenue bonds is recorded in a capital projects fund. Pension and OPEB long-term liabilities are generally liquidated with resources of the general fund.

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

Long-term liability activity for the year ended June 30, 2020, was as follows:

	Funded by	Beginning Balance	Additions	Reductions	Ending Balance	Amortizable/ Payable Within One Year
<b>Governmental Activities:</b>						
<b>Bonds Payable:</b>						
Unlimited Tax School Building and Refunding Bonds	Debt Service	\$ 675,164	\$ -	\$ 78,593	\$ 596,571	\$ 596,571
Unlimited Tax Refunding Bonds	Debt	263,095,000	37,850,000	23,440,000	277,505,000	11,550,000
Unlimited Tax School Building Bonds	Service	452,940,000	197,075,000	29,730,000	620,285,000	-
Unlimited Tax Refunding Bonds Taxable	Debt Service	4,170,000	-	1,110,000	3,060,000	1,770,000
Total Bonds Payable		720,880,164	234,925,000	54,358,593	901,446,571	13,916,571
<b>Accretion Payable - Series 2008 CABS</b>						
	Debt Service	6,454,237	270,823	946,274	5,778,786	5,778,786
<b>Unamortized Premiums on Bonds</b>						
	Debt Service	64,885,465	33,864,805	6,648,220	92,102,050	5,915,335
<b>Other Liabilities:</b>						
Capital leases	General	11,212,050	-	379,362	10,832,688	446,913
2009 QSC Maintenance Tax Notes	General	15,275,000	-	-	15,275,000	-
2017 Maintenance Tax Notes	General	5,330,000	-	220,000	5,110,000	225,000
Unamortized Premiums on 2017 Maintenance Tax Notes	General	247,907	-	14,053	233,854	14,053
2017 QSC Maintenance Tax Notes	General	15,300,000	-	-	15,300,000	-
2020 Maintenance Tax Notes	General	-	17,390,000	-	17,390,000	-
Unamortized Premiums on 2020 Maintenance Tax Notes	General	-	331,454	5,063	326,391	16,651
2018 APFC Lease Revenue Bond	Capital Projects	16,385,000	-	-	16,385,000	420,000
Unamortized Premiums on 2018 APFC Lease Revenue Bond	General	336,511	-	14,231	322,280	14,231
Due to Taxpayer	General	312,760	-	312,760	-	-
Due to Taxpayer	Debt Service	48,230	-	48,230	-	-
Accumulated Unpaid Leave Benefits	General	11,736,117	2,315,972	3,088,946	10,963,143	1,980,000
Asset Retirement Obligation	General	1,278,394	24,824	-	1,303,218	-
Total other liabilities		77,461,969	20,062,250	4,082,645	93,441,574	3,116,848
Total Long-term debt		869,681,835	289,122,878	66,035,732	1,092,768,981	28,727,540
Net Pension liability	General	\$ 189,481,944	\$ -	\$ 24,198,538	\$ 165,283,406	\$ -
Net OPEB liability	General	239,613,609	-	24,943,186	214,670,423	-
Total Governmental Activities Long-term liabilities		1,298,777,388	289,122,878	115,177,456	1,472,722,810	28,727,540

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

A summary of changes in the Debt Service bonds payable for the year ended June 30, 2020, is as follows:

Description	Interest Rate Payable and Maturity Date	Original Issue Amount	Interest Current Year	Beginning Balance	Issued	Refunded/ Retired	Ending Balance	Due within One year
Unlimited Tax School Building Bonds: Series 2004B	Variable 8/1/2029	\$ 44,730,000	\$ 404,975	\$ 29,730,000	\$ -	\$ 29,730,000	\$ -	\$ -
Unlimited Tax School Building and Refunding Bonds: Series 2008 Premium CABs	4.60% 8/15/2020	16,033,014	576,407	675,164	-	78,593	596,571	596,571
Unlimited Tax Refunding Bonds: Series 2011 CIBs	5.00% 8/15/2020	38,675,000	969,425	22,755,000	-	17,595,000	5,160,000	5,160,000
Unlimited Tax Refunding Bonds: Series 2013	3.00%-5.00% 8/15/2031	56,075,000	2,011,750	44,260,000	-	3,190,000	41,070,000	2,825,000
Unlimited Tax Refunding Bonds: Taxable Series 2013A	4.00% 8/15/2021	9,570,000	144,600	4,170,000	-	1,110,000	3,060,000	1,770,000
Unlimited Tax Refunding Bonds: Series 2015	3.00%-5.00% 8/15/2032	78,740,000	3,656,875	75,265,000	-	2,655,000	72,610,000	2,785,000
Unlimited Tax Refunding Bonds: Series 2015A	2.50%-5.00% 8/15/2033	104,555,000	4,888,225	104,555,000	-	-	104,555,000	-
Unlimited Tax School Building Bonds: Series 2017 Serial Bonds	3.00%-5.00% 8/15/2038	98,000,000	8,438,738	98,000,000	-	-	98,000,000	-
Series 2017 Term Bonds	8/15/2042	83,835,000	-	83,835,000	-	-	83,835,000	-
Unlimited Tax Refunding Bonds: Taxable Series 2018	3.00%-5.00% 8/15/2033	16,570,000	695,400	16,260,000	-	-	16,260,000	-
Unlimited Tax School Building Bonds: Taxable Series 2019	3.00%-5.00% 8/15/2043	241,375,000	9,555,880	241,375,000	-	-	241,375,000	-
Unlimited Tax School Building Bonds: Series 2020 Serial Bonds	4.00% 8/15/2040	16,790,000	-	-	16,790,000	-	16,790,000	-
Series 2020 Term Bonds	8/15/2048	180,285,000	-	-	180,285,000	-	180,285,000	-
Unlimited Tax Refunding Bonds: Series 2020	3.00%-5.00% 8/15/2029	37,850,000	-	-	37,850,000	-	37,850,000	780,000
Total Debt Service Bonds Payable			\$ 31,342,275	720,880,164	234,925,000	54,358,593	901,446,571	13,916,571

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

Unamortized Premiums on debt service bonds for the year ended June 30, 2020, were as follows:

Description	Beginning Balance	Premiums on New Issues	Amortization Recognized	Ending Balance	Amortizable Within One Year
Series 2004B	\$ 65,523	\$ -	\$ 65,523	\$ -	\$ -
Series 2008	52,529	-	45,025	7,504	7,504
Series 2011	2,685,675	-	2,289,928	395,747	395,747
Series 2013	6,572,102	-	541,496	6,030,606	541,496
Series 2013A	236,926	-	111,161	125,765	111,161
Series 2015	11,769,142	-	895,692	10,873,450	895,692
Series 2015A	13,837,029	-	978,594	12,858,435	978,594
Series 2017	17,747,868	-	766,894	16,980,974	766,894
Series 2018	1,443,107	-	102,079	1,341,028	102,079
Series 2019	10,475,564	-	433,905	10,041,659	433,905
Series 2020	-	27,148,781	377,863	26,770,918	951,172
Series 2020 Refunding	-	6,716,024	40,060	6,675,964	731,091
Total Unamortized Premiums	\$ 64,885,465	\$ 33,864,805	\$ 6,648,220	\$ 92,102,050	\$ 5,915,335

**K. Debt Service Bonds Payable**

The 2004B Bonds have a variable interest rate. The District has a Standby Bond Purchase Agreement with JP Morgan Chase to provide liquidity support on the \$29,730,000 balance of the 2004B Bonds. The bonds are in a variable rate "flex mode," whereby the rate is set weekly and then re-marketed quarterly. The District's rate was .27% on June 30, 2020, and the average rate for fiscal year 2020 was 1.36%. The 2004B variable rate bonds were refunded on June 10, 2020, with the issuance of the Unlimited Tax Refunding Bonds, Series 2020.

The District had one capital appreciation bond during the year ending June 30, 2020, that was issued at a deep discount. The discount is being accreted over the life of the bond. For the year ended June 30, 2020, \$270,823 was accreted.

On January 4, 2017, the District issued the Unlimited Tax School Building Bonds, Series 2017 in the amount of \$181,835,000. The bonds were issued at a premium, and the net additional proceeds the District received was \$18,165,000. The total proceeds from the issuance was \$200,000,000. This was the first bond sale of the \$668,695,577, authorized by the voters at the November 2016 general election. Bond payments are payable on February 15 and August 15 of each year, commencing on February 15, 2017. The bonds were structured as serial bonds maturing August 15, 2027 to August 15, 2038, and term bonds maturing on August 15, 2042. The term bonds have mandatory sinking fund payments from August 15, 2039 to August 15, 2042.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

On January 30, 2019, the District issued Unlimited Tax School Building Bonds, Series 2019 in the amount of \$241,375,000. The bonds were issued at a premium and the net proceeds from the issuance was \$250,000,000. This was the second bond sale authorized by the voters at the November 2016 general election. The authorized but unissued amount remaining from the election is \$218,695,577. Bonds payments are payable on February 15 and August 15 of each year, commencing on August 15, 2019. The bonds were structured as serial bonds maturing August 15, 2027 to August 15, 2039, and term bonds maturing on August 15, 2043. The term bonds have mandatory sinking fund payments from August 15, 2040 to August 15, 2043.

On February 6, 2020, the District issued Unlimited Tax Building Bonds, Series 2020 in the amount of \$197,075,000. The bonds were issued at a premium, and the net proceeds from the issuance was \$218,695,577. This was the third and final issuance of the \$668,695,577 authorized by the voters in the November 2016 general election. Bond payments are payable on February 15 and August 15 of each year, commencing on August 15, 2020. The bonds were structured as serial bonds maturing August 15, 2030 to August 15, 2040, and term bonds maturing on August 15, 2045 and August 15, 2048. The term bonds have mandatory sinking fund payments from August 15, 2041 to August 15, 2048.

On June 10, 2020, the District issued Unlimited Tax Refunding Bonds, Series 2020 in the amount of \$37,850,000. The bonds were issued at a premium, and refunded \$29,730,000 of the Unlimited Tax School Building Variable Rate Bonds, Series 2004B, and \$13,900,000 of the Unlimited Tax School Refunding Bonds, Series 2011. Bond payments are payable on February 15 and August 15 of each year, commencing on August 15, 2020. The final bond principal payment is on August 15, 2029. The refunding reduced future debt service costs (difference between cash flow to service old debt and that required for new debt) by \$6,884,640, and resulted in an economic gain (difference between the present values of the old and new debt service payments) of \$6,454,905. As of June 30, 2020, the \$43,630,000 of the refunded bonds remain outstanding with an estimated related escrow balance of \$44,135,156.

There are a number of limitations and restrictions contained in the general obligation bond indenture. Management has indicated that the District is in compliance with all significant limitations and restrictions at June 30, 2020.

Debt service requirements for bonds payable are as follows:

Year Ending June 30,	Bonds Payable		Total
	Principal	Interest	
2021	\$ 13,916,571	\$ 44,127,595	\$ 58,044,166
2022	17,220,000	38,346,256	55,566,256
2023	14,980,000	37,567,706	52,547,706
2024	20,790,000	36,693,456	57,483,456
2025	21,835,000	35,658,269	57,493,269
2026 - 2030	115,130,000	162,326,131	277,456,131
2031 - 2035	150,625,000	132,048,347	282,673,347
2036 - 2040	194,295,000	94,508,250	288,803,250
2041 - 2045	222,885,000	47,735,050	270,620,050
2046 - 2049	129,770,000	10,671,200	140,441,200
Total	\$ 901,446,571	\$ 639,682,260	\$ 1,541,128,831

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****L. Capital Leases**

On December 21, 2018, the District entered into an Equipment Lease Purchase Agreement with the Banc of America Public Capital Corporation for \$10,847,034. The lease purchase is to finance equipment upgrades for energy savings under a guaranteed savings performance contract. The first lease payment was on January 1, 2020, with the final payment due on July 1, 2034, with an interest rate of 3.51 percent. As of June 30, 2020, the project was completed and is included in Capital Leases.

On July 1, 2020 the District refinanced the Equipment Lease Purchase Agreement with the Banc of America Public Capital Corporation. The refinancing of \$10,832,688 is with U.S. Bancorp. The new lease purchase agreement has an interest rate of 2.22% and will save the District \$1,150,589 over 14 years. The first lease payment commences on July 17, 2020, with the final payment due on January 17, 2034.

In addition, during the year ended June 30, 2020, the District had two lease agreements related to the purchase of buses for a gross amount of \$2,447,700. As of June 30, 2020, the final lease payment was made and the buses were transferred to Vehicles.

Total interest paid during the fiscal year ending June 30, 2020, related to capital leases was \$401,082.

Capital lease future payments are as follows:

Year Ending June 30,	Total Gross Minimum Lease Payments	Interest	Principal/ Present Value Minimum Lease Payments
2021	\$ 446,913	\$ 380,694	\$ 66,219
2022	478,037	364,556	113,481
2023	510,730	347,301	163,429
2024	545,061	328,870	216,191
2025	602,576	309,205	293,371
2026 - 2030	3,765,884	1,180,459	2,585,425
2031 - 2035	4,483,487	413,159	4,070,328
Total	<u>\$ 10,832,688</u>	<u>\$ 3,324,244</u>	<u>\$ 7,508,444</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****M. Maintenance Tax Notes****2009 Qualified School Construction Maintenance Tax Notes**

On October 21, 2009, the District issued Qualified School Construction Maintenance Tax Notes Series 2009 in the amount of \$15,275,000. In lieu of interest payments, the owners of the notes receive Federal Tax Credits under the American Recovery and Reinvestment Act of 2009. The District issued the notes with a supplemental interest rate of 1.55%. The supplemental interest is payable February 15 and August 15 of each year commencing February 15, 2010, and ending on August 15, 2025. Total interest paid by the District during the fiscal year ending June 30, 2020, was \$236,763. The notes are scheduled to mature on August 15, 2025, at which time the entire amount is due. The District has established a Sinking Fund and has entered into a Repurchase Investment Agreement to pay the notes. Sinking Fund payments are payable on February 15 of each year commencing on February 15, 2010, and ending on February 15, 2025. Since the notes will not be paid until they mature on August 15, 2025, the sinking fund deposits are recorded in debt service fund 575 and restricted for that purpose. The balance in the sinking fund as of June 30, 2020, totaled \$9,241,946.

The Remaining Sinking Fund Deposits required for the QSC Maintenance Tax Notes are as follows:

Fiscal Year	Sinking Fund Deposits	Interest Payments	Annual Total
2021	\$ 684,059	\$ 236,763	\$ 920,822
2022	684,059	236,763	920,822
2023	684,059	236,763	920,822
2024	684,059	236,763	920,822
2025	684,059	236,763	920,822
2026	-	118,381	118,381
Total	3,420,295	\$ 1,302,196	\$ 4,722,491
Balance in sinking fund	9,241,946		
Estimated future interest earnings	2,612,759		
Withdrawal at maturity	\$ 15,275,000		

**2017 Maintenance Tax Notes**

On July 24, 2017, the District closed on the issuance of the Maintenance Tax Notes, Series 2017 in the amount of \$5,845,000 with interest rates ranging from 2% to 4%. The Notes sold at a premium, and the District received proceeds of \$6,000,000. Note payments are payable on February 15 and August 15 of each year, commencing on February 15, 2018. The Notes were structured as serial notes maturing on February 15, 2033, and term notes maturing on February 15, 2037. Total interest paid by the District during the fiscal year ending June 30, 2020, was \$181,075.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

Fiscal Year	Principal Payments	Interest Payments	Annual Total
2021	\$ 225,000	\$ 176,675	\$ 401,675
2022	235,000	169,925	404,925
2023	240,000	162,875	402,875
2024	250,000	155,675	405,675
2025	255,000	148,175	403,175
2026 - 2030	1,430,000	592,625	2,022,625
2031 - 2035	1,705,000	314,125	2,019,125
2036 - 2037	770,000	37,700	807,700
Total	\$ 5,110,000	\$ 1,757,775	\$ 6,867,775

2017 Qualified School Construction Maintenance Tax Notes

On December 12, 2017, the District issued Qualified School Construction Maintenance Tax Notes, Series 2017 in the amount of \$15,300,000. The District will receive subsidy payments from the United States Treasury for 90% of the interest payments which are payable on February 15 and August 15 of each year, commencing on February 15, 2018. Total interest paid by the District during the fiscal year ending June 30, 2020, was \$39,658. The Notes are scheduled to mature on August 15, 2037, at which time the entire amount is due. The District has established a Sinking Fund and has entered into a Repurchase Investment Agreement to pay the notes. Sinking fund deposits are due in August of each year, through August 15, 2037. Due to the QSC tax subsidy and the interest earnings in the sinking fund, the net all-inclusive borrowing costs on the transaction is a negative .5362%. The balance in the sinking fund as of June 30, 2020, totaled \$1,280,076.

## QSC Maintenance Tax Notes:

Fiscal Year	Sinking Fund Deposits	Interest Payments	Projected Tax Subsidy	Net Interest Payments	Annual Total	Estimated Interest Earnings	Expected Withdrawal at Maturity
2021	\$ 627,208	\$ 619,650	\$ (576,274)	\$ 43,376	\$ 670,584	-	-
2022	627,208	619,650	(576,274)	43,376	670,584	-	-
2023	627,208	619,650	(576,274)	43,376	670,584	-	-
2024	627,208	619,650	(576,274)	43,376	670,584	-	-
2025	627,208	619,650	(576,274)	43,376	670,584	-	-
2026	627,208	619,650	(576,274)	43,376	670,584	-	-
2027	627,208	619,650	(576,274)	43,376	670,584	-	-
2028	627,208	619,650	(576,274)	43,376	670,584	-	-
2029	627,208	619,650	(576,274)	43,376	670,584	-	-
2030	627,208	619,650	(576,274)	43,376	670,584	-	-
2031	627,208	619,650	(576,274)	43,376	670,584	-	-
2032	627,208	619,650	(576,274)	43,376	670,584	-	-
2033	627,208	619,650	(576,274)	43,376	670,584	-	-
2034	627,208	619,650	(576,274)	43,376	670,584	-	-
2035	627,208	619,650	(576,274)	43,376	670,584	-	-
2036	627,208	619,650	(576,274)	43,376	670,584	-	-
2037	627,208	619,650	(576,274)	43,376	670,584	-	-
2038	627,208	309,825	(288,137)	21,688	648,896	2,730,180	15,300,000
Total	\$ 11,289,744	\$ 10,843,875	\$ (10,084,795)	\$ 759,080	\$ 12,048,824	\$ 2,730,180	\$ 15,300,000

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

2020 Maintenance Tax Notes

On March 11, 2020, the District issued Variable Rate Maintenance Tax Notes, Series 2020 in the amount of \$17,390,000. The notes were issued at a premium, and the net proceeds from the issuance was \$17,500,000. The notes will be remarketed after an initial interest rate of 2.376%, which ends on July 31, 2021. Tax Note payments are payable on February 1 and August 1 of each year, commencing on August 1, 2020. The final principal payment on the Notes is on February 1, 2040. The District did not pay interest on this note during the fiscal year ending June 30, 2020.

Fiscal Year	Principal Payments	Interest Payments	Annual Total
2021	\$ -	\$ 386,444	\$ 386,444
2022	-	565,175	565,175
2023	-	695,600	695,600
2024	-	695,600	695,600
2025	-	695,600	695,600
2026 - 2030	2,550,000	3,427,600	5,977,600
2031 - 2035	6,960,000	2,424,600	9,384,600
2036 - 2040	7,880,000	961,200	8,841,200
Total	\$ 17,390,000	\$ 9,851,819	\$ 27,241,819

N. Public Facility Corporation Bonds2018 Administrative Public Facility Corporation Lease Revenue Bonds, Series 2018

On October 18, 2018, the District issued the EPISD Administrative Public Facility Corporation Lease Revenue Bonds, Series 2018 in the amount of \$16,385,000. Bonds payments are payable on February 15 and August 15 of each year, commencing on February 15, 2019 and ending on February 15, 2043. The bonds were sold at a premium with coupon payments of 4.00 - 5.00 percent. The Public Facility Corporation is a nonprofit corporation acting on behalf of the District to issue bonds for the construction of a new administration building. Total interest paid by the District during the fiscal year ending June 30, 2020, was \$695,400.

Fiscal Year	Principal Payments	Interest Payments	Annual Total
2021	\$ 420,000	\$ 695,400	\$ 1,115,400
2022	440,000	674,400	1,114,400
2023	460,000	652,400	1,112,400
2024	485,000	629,400	1,114,400
2025	510,000	605,150	1,115,150
2026 - 2030	2,950,000	2,623,450	5,573,450
2031 - 2035	3,625,000	1,945,400	5,570,400
2036 - 2040	4,405,000	1,160,200	5,565,200
2041 - 2043	3,090,000	250,400	3,340,400
Total	\$ 16,385,000	\$ 9,236,200	\$ 25,621,200

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****O. Accumulated Unpaid Sick Leave Benefits**

Upon retirement or death of certain employees, the District pays one-half of accrued sick leave in a lump sum cash payment to such employee or his/her estate. Eligibility is contingent on at least five years of service with the District and being hired prior to July 1, 2014. A summary of changes in the accumulated sick leave follows:

	<u>Sick Leave</u>
Balance June 30, 2019	\$ 11,736,117
Additions	2,315,972
Deductions	<u>(3,088,946)</u>
Balance June 30, 2020	<u><u>\$ 10,963,143</u></u>

**P. Asset Retirement Obligation**

In implementing GASBS 83, the District determined that an Asset Retirement Obligation (ARO) was required for presentation. In fiscal year ending June 30, 2021, the District will terminate the Industrial Site Lease with the El Paso International Airport, which is the current location of the District's Administration Building. As stated in the legally binding contract, after termination of the lease, the District has 180 days to clear all improvements above ground level which have been constructed on the site. The District estimates the cost for demolition will be \$1,303,218. The measurement method used for the ARO estimate is based on the current value demolition costs with an escalation factor for inflation. As a result, a long-term liability and deferred outflow of resources will be recorded for this amount.

**Q. Rebatable Arbitrage**

The Tax Reform Act of 1986 instituted certain arbitrage restrictions with respect to the issuance of tax-exempt bonds after August 31, 1986. Arbitrage regulations deal with the investment of all tax-exempt bond proceeds at an interest yield greater than the interest yield paid to bondholders. Generally, all interest paid to bondholders can be retroactively rendered taxable if applicable rebates are not reported and paid to the Internal Revenue Service (IRS) at least every five years. Arbitrage is evaluated and estimated on an annual basis by a third party arbitrage rebate service company. The company has estimated no liability for the District as of June 30, 2020.

**R. Deferred Inflow Gain on Refunding**

The deferred gain on refunded bonds for the year ended June 30, 2020, was as follows:

Description	Beginning Balance	Deferred Gain on New Issues	Amortization Recognized	Ending Balance
Series 2018	\$ 357,272	\$ -	\$ 25,272	\$ 332,000
Series 2020	-	1,637,111	9,765	1,627,346
Total Deferred Gain	<u>\$ 357,272</u>	<u>\$ 1,637,111</u>	<u>\$ 35,037</u>	<u>\$ 1,959,346</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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IV. DETAILED NOTES ON ALL FUNDS (Continued)S. Commitments Under Operating Leases

Commitments under operating (noncapitalized) lease agreements for facilities, land, computer equipment, and copiers provide for minimum future rental payments as of June 30, 2020, as follows:

<u>Year Ending June 30,</u>	
2021	\$ 312,131
2022	42,722
2023	39,725
2024	33,729
2025	33,729
2026- 2030	<u>45,137</u>
Total Minimum Rentals	<u>\$ 507,173</u>
Rental expenditures for the year ended June 30, 2020	<u>\$ 1,069,452</u>

T. Defined Benefit Pension Plan

**Plan Description:** The District participates in a cost-sharing multiple-employer defined benefit pension that has a special funding situation. The plan is administered by the Teacher Retirement System of Texas (TRS). It is a defined benefit pension plan established and administered in accordance with the Texas Constitution, Article XVI, Section 67 and Texas Government Code, Title 8, Subtitle C. The pension trust fund is a qualified pension trust under Section 401(a) of the Internal Revenue Code. The Texas Legislature establishes benefits and contribution rates within the guidelines of the Texas Constitution. The pension's Board of Trustees does not have the authority to establish or amend benefit terms.

All employees of public, state-supported educational institutions in Texas who are employed for one half or more of the standard work load and who are not exempted from membership under Texas Government Code, Title 8, Section 822.002 are covered by the system.

**Pension Plan Fiduciary Net Position:** Detailed information about the Teacher Retirement System's fiduciary net position is available in a separately-issued Comprehensive Annual Financial Report that includes financial statements and required supplementary information. That report may be obtained on the internet at <http://www.trs.state.tx.us/about/documents/cafr.pdf#CAFR>; by writing to TRS at 1000 Red River Street, Austin, TX 78701-2698; or by calling (512) 542-6592.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Benefits Provided:** TRS provides service and disability retirement, as well as death and survivor benefits, to eligible employees (and their beneficiaries) of public and higher education in Texas. The pension formula is calculated using 2.3 percent (multiplier) times the average of the five highest annual creditable salaries times years of credited service to arrive at the annual standard annuity except for members who are grandfathered, the three highest annual salaries are used. The normal service retirement is at age 65 with 5 years of credited service or when the sum of the member's age and years of credited service equals 80 or more years. Early retirement is at age 55 with 5 years of service credit or earlier than 55 with 30 years of service credit. There are additional provisions for early retirement if the sum of the member's age and years of service credit total at least 80, but the member is less than age 60 or 62 depending on date of employment, or if the member was grandfathered in under a previous rule. There are no automatic post-employment benefit changes; including automatic COLAs. Ad hoc post-employment benefit changes, including ad hoc COLAs can be granted by the Texas Legislature as noted in the Plan description above.

In May 2019, the 86<sup>th</sup> Texas Legislature approved the TRS Pension Reform Bill (Senate Bill 12) that provides for gradual contribution increases from the state, participating employers and active employees to make the pension fund actuarially sound. This action causing the pension fund to be actuarially sound, allowed the legislature to approve funding for a 13<sup>th</sup> check in September 2019. All eligible members retired as of December 31, 2018 received an extra annuity check in either the matching amount of their monthly annuity or \$2,000, whichever was less.

**Contributions:** Contribution requirements are established or amended pursuant to Article 16, section 67 of the Texas Constitution which requires the Texas legislature to establish a member contribution rate of not less than 6% of the member's annual compensation and a state contribution rate of not less than 6% and not more than 10% of the aggregate annual compensation paid to members of the system during the fiscal year. Texas Government Code section 821.006 prohibits benefit improvements, if as a result of the particular action, the time required to amortize TRS' unfunded actuarial liabilities would be increased to a period that exceeds 31 years, or, if the amortization period already exceeds 31 years, the period would be increased by such action. Actuarial implications of the funding provided in this manner are determined by the System's actuary.

Employee contribution rates are set in state statute, Texas Government Code 825.402. The TRS Pension Reform Bill (Senate Bill 12) of the 86<sup>th</sup> Texas Legislature amended Texas Government Code 825.402 for member contributions and established employee and employer contribution rates for fiscal years 2020 through 2025.

	<u>Contribution Rates</u>	
	<u>Plan Fiscal Year</u>	
	<u>2019</u>	<u>2020</u>
Member	7.7%	7.7%
Non-Employer Contributing Entity (State)	6.8%	7.5%
Employers	6.8%	7.5%

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**Contributions Required and Made

FY 2020 Employer Contributions	\$ 12,285,012
FY 2020 Member Contributions	29,976,009
2019 Plan Year NECE On-Behalf Contributions (State)	18,521,174

Contributors to the plan include members, employers and the State of Texas as the only non-employer contributing entity. The State is the employer for senior colleges, medical schools and state agencies, including TRS. In each respective role, the State contributes to the plan in accordance with state statutes and the General Appropriations Act (GAA).

As the non-employer contributing entity for public education and junior colleges, the State of Texas contributes to the retirement system an amount equal to the current employer contribution rate times the aggregate annual compensation of all participating members of the pension trust fund during that fiscal year reduced by the amounts described below which are paid by the employers. Employers (public school, junior college, other entities or the State of Texas as the employer for senior universities and medical schools) are required to pay the employer contribution rate in the following instances:

- On the portion of the member's salary that exceeds the statutory minimum for members entitled to the statutory minimum under Section 21.402 of the Texas Education Code.
- During a new member's first 90 days of employment.
- When any part or all of an employee's salary is paid by federal funding sources, a privately sponsored source, from non-educational and general, or local funds.
- When the employing district is a public junior college or junior college district, the employer shall contribute to the retirement system an amount equal to 50 percent of the state contribution rate for certain instructional or administrative employees; and 100 percent of the state contribution rate for all other employees.
- When the employing district is a public or charter school, the employer shall contribute 1.5 percent of covered payroll to the pension fund beginning in fiscal year 2020. This contribution rate called the Public Education Employer Contribution will replace the Non-OASDI surcharge that was in effect in fiscal year 2019.

Included in the employer contributions amount listed above for fiscal year 2020, the District paid \$146,081 in retiree surcharges and \$4,822,863 for non-OASDI employees. These two additional surcharges an employer is subject to are summarized as follows:

- When employing a retiree of the Teacher Retirement System the employer shall pay both the member contribution and the state contribution as an employment after retirement surcharge.
- When a school district or charter school does not contribute to the Federal Old-Age, Survivors and Disability Insurance (OASDI) Program for certain employees, they must contribute 1.5 percent of the state contribution rate for certain instructional or administrative employees; and 100 percent of the state contribution rate for all other employees. This surcharge was in effect through fiscal year 2019 and was replaced with the Public Education Employer Contribution explained above.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Actuarial Assumptions:** The actuarial valuation was performed as of August 31, 2018. Update procedures were used to roll forward the total pension liability to August 31, 2019. The actuarial methods and assumption used in the determination of the total pension liability are the same assumptions used in the actuarial valuation as of August 31, 2018. The total pension liability is determined by an annual actuarial valuation. The actuarial methods and assumptions were selected by the Board of Trustees based upon analysis and recommendations by the System's actuary. The Board of Trustees has sole authority to determine the actuarial assumptions used for the Plan. The actuarial methods and assumptions were primarily based on a study of actual experience for the three year period ending August 31, 2018 and were adopted in July 2018. The following table discloses the assumptions that were applied to this measurement period:

Valuation Date	August 31, 2018 rolled forward to August 31, 2019
Actuarial Cost Method	Individual Entry Age Normal
Asset Valuation Method	Market Value
Single Discount Rate	7.25%
Mortality Assumption	The active mortality rates were based on 90 percent of RP 2014 Employee Mortality Tables for males and females with full generational mortality. The post-retirement mortality rates were based on the 2018 TRS of Texas Healthy Pensioner Mortality Tables with full generational projection using the ultimate improvement rates from the most recently published projection scale U-MP.
Long-term expected Investment Rate of Return	7.25%
Municipal Bond Rate as of August 2019	2.63%. Source for the rate is the Fixed Income Market Data/Yield Curve/ Data Municipal Bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index"
Last year ending August 31 in Projection Period (100 years)	2116
Inflation	2.30%
Salary Increases	3.50% to 9.05% including inflation
Ad hoc post-employment benefit changes	None

**Discount Rate:** The single discount rate used to measure the total pension liability was 7.25 percent. The single discount rate was based on the expected rate of return on pension plan investments of 7.25 percent. The projection of cash flows used to determine the discount rate assumed that contributions from active members, employers and the non-employer contributing entity will be made at the rates set by the Legislature during the 2019 legislative session. It is assumed that future employer and state contributions will be 8.50 percent of payroll in fiscal year 2020 gradually increasing to 9.55 percent of payroll over the next several years. This includes all employer and State contributions for active and rehired retirees. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The long-term expected rate of return on pension plan investments is 7.25 percent and was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the Systems target asset allocation as of August 31, 2019 are summarized below:

Asset Class	FY 2019 Target Allocation*	New Target Allocation**	Long-Term Expected Geometric Real Rate of Return***
<b>Global Equity</b>			
U.S.	18.0%	18.0%	6.4%
Non-U.S. Developed	13.0%	13.0%	6.3%
Emerging Markets	9.0%	9.0%	7.3%
Directional Hedge Funds	4.0%	-	-
Private Equity	13.0%	14.0%	8.4%
<b>Stable Value</b>			
U.S. Treasuries****	11.0%	16.0%	3.1%
Stable Value Hedge Funds	4.0%	5.0%	4.5%
Absolute Return	0.0%	0.0%	0.0%
<b>Real Return</b>			
Global Inflation Linked Bonds****	3.0%	-	-
Real Estate	14.0%	15.0%	8.5%
Energy, Natural Resources and Infrastructure	5.0%	6.0%	7.3%
Commodities	0.0%	0.0%	0.0%
<b>Risk Parity</b>			
Risk Parity	5.0%	8.0%	5.8%/6.5%*****
<b>Leverage</b>			
Cash	1.0%	2.0%	2.5%
Asset Allocation Leverage	-	-6.0%	2.7%
Expected Return	100%	100.0%	7.23%

\*Target allocations are based on the Strategic Asset Allocation as of FY2019

\*\*New allocations are based on the Strategic Asset Allocation to be implemented FY 2020

\*\*\*10-Year annualized geometric nominal returns include the real rate of return and inflation of 2.1%

\*\*\*\*New Target Allocation groups Government Bonds within the stable value allocation. This includes global sovereign nominal and inflation-linked bonds

\*\*\*\*\*5.8 (6.5%) return expectation corresponds to Risk Parity with a 10%(12%) target volatility

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Discount Rate Sensitivity Analysis:** The following schedule shows the impact of the Net Pension Liability if the discount rate used was 1% less than and 1% greater than the discount rate that was used (7.25%) in measuring the Net Pension Liability:

	1% Decrease 6.25%	Current Single Discount Rate 7.25%	1% Increase Rate 8.25%
District's proportionate share of the net pension liability	\$ 254,064,606	\$ 165,283,406	\$ 93,353,498

**Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:** At June 30, 2020, the District reported a liability of \$165,283,406 for its proportionate share of the TRS's net pension liability. This liability reflects a reduction for State pension support provided to the District. The amount recognized by the District as its proportionate share of the net pension liability, the related State support, and the total portion of the net pension liability that was associated with the District were as follows:

The District's proportionate share of the collective net pension liability	\$ 165,283,406
State's proportionate share that is associated with the District	<u>275,084,593</u>
Total	<u><u>\$ 440,367,999</u></u>

The net pension liability was measured as of August 31, 2018 and rolled forward to August 31, 2019 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The District's proportion of the net pension liability was based on the District's contributions to the pension plan relative to the contributions of all employers to the plan for the period September 1, 2018 through August 31, 2019.

At August 31, 2019 the employer's proportion of the collective net pension liability was 0.3179558797% which was an decrease of 0.0262911941% from its proportion measured as of August 31, 2018.

**Changes since the Prior Actuarial Valuation:** The following were changes to the actuarial assumptions or other inputs that affected measurement of the total pension liability since the prior measurement period.

- The single discount rate as of August 31, 2018 was a blended rate of 6.907 percent and that has changed to the long-term rate of return of 7.25 percent as of August 31, 2019.
- With the enactment of SB 3 by the 2019 Texas Legislature, an assumption has been made about how this would impact future salaries. It is assumed that eligible active members will each receive a \$2,700 increase in fiscal year 2020. This is in addition to the salary increase expected in the actuarial assumptions.
- The Texas legislature approved funding for a 13<sup>th</sup> check. All eligible members retired as of December 31, 2018 will receive an extra annuity check in September 2019 in either the matching amount of their monthly annuity payment or \$2,000, whichever is less.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

There were no changes of benefit terms that affected measurement of the total pension liability during the measurement period.

For the year ended June 30, 2020, the District recognized pension expense of \$43,211,914 and revenue of \$43,211,914 for support provided by the State.

The amount of pension expense recognized by the District in the reporting period was \$75,514,683.

At June 30, 2020, the District reported its proportionate share of the TRS's deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual economic experience	\$ 694,338	\$ 5,738,902
Changes in actuarial assumptions	51,279,030	21,190,921
Net difference between projected and actual investment earnings	1,659,636	-
Changes in proportion and difference between District's contributions and proportionate share of contributions	12,077,662	11,942,034
District contributions to TRS subsequent to the measurement date	10,516,021	-
Total	<u>\$ 76,226,687</u>	<u>\$ 38,871,857</u>

The \$10,516,021 reported as deferred outflows of resources related to pensions resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2021.

The net amounts of the employer's balances of deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended June 30	Amount
2021	\$ 7,958,868
2022	5,960,114
2023	6,986,568
2024	6,579,813
2025	1,442,663
Thereafter	<u>(2,089,217)</u>
	<u>\$ 26,838,809</u>

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Changes in Net Pension Liability:**

	Beginning Balance	Additions	Reductions	Ending Balance
Net Pension Liability	\$ 189,481,944	\$ -	\$ 24,198,538	\$ 165,283,406

**Pension Payable:** At June 30, 2020, the District reported a payable of \$4,169,280 to the pension plan for the outstanding amount of contractually required contributions related to past service costs. Member contributions included in this payable were \$2,563,893.

U. Defined Other Post-Employment Benefit Plan

**Plan Description:** The District participates in the Texas Public School Retired Employees Group Insurance Program (TRS-Care). It is a multiple-employer, cost-sharing defined Other Post-Employment Benefit (OPEB) plan that has a special funding situation. The plan is administered through a trust by the Teacher Retirement System of Texas (TRS) Board of Trustees. It is established and administered in accordance with the Texas Insurance Code, Chapter 1575.

**OPEB Plan Fiduciary Net Position:** Detail information about the TRS-Care's fiduciary net position is available in the separately-issued TRS Comprehensive Annual Financial Report that includes financial statements and required supplementary information. That report may be obtained on the internet at <http://www.trs.state.tx.us/about/documents/cafr.pdf#CAFR>; by writing to TRS at 1000 Red River Street, Austin, TX 78701-2698; or by calling (512) 542-6592.

**Benefits Provided:** TRS-Care provides health insurance coverage to retirees from public schools, charter schools, regional education service centers and other educational districts who are members of the TRS pension plan. Optional dependent coverage is available for an additional fee.

Eligible non-Medicare retirees and their dependents may enroll in TRS-Care Standard, a high deductible health plan. Eligible Medicare retirees and their dependents may enroll in the TRS-Care Medicare Advantage medical plan and the TRS-Care Medicare Rx prescription drug plan. To qualify for TRS-Care coverage, a retiree must have at least 10 years of service credit in the TRS pension system. The Board of Trustees is granted the authority to establish basic and optional group insurance coverage for participants as well as to amend benefit terms as needed under Chapter 1575.052. There are no automatic post-employment benefit changes; including automatic COLAs.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

The premium rates for retirees are reflected in the following table:

TRS-Care Monthly Plan Premium Rates			
	Medicare		Non-Medicare
Retiree or Surviving Spouse	\$	135	\$ 200
Retiree and Spouse		529	689
Retiree or Surviving Spouse and Children		468	408
Retiree and Family		1,020	999

**Contributions:** Contribution rates for the TRS-Care plan are established in state statute by the Texas Legislature, and there is no continuing obligation to provide benefits beyond each fiscal year. The TRS-Care plan is currently funded on a pay-as-you-go basis and is subject to change based on available funding. Funding for TRS-Care is provided by retiree premium contributions and contributions from the state, active employees, and school districts based upon public school district payroll. The TRS Board of Trustees does not have the authority to set or amend contribution rates.

Texas Insurance Code, section 1575.202 establishes the state's contribution rate which is 1.25 percent of the employee's salary. Section 1575.203 establishes the active employee's rate which is 0.65 percent of pay. Section 1575.204 establishes an employer contribution rate of not less than 0.25 percent or not more than 0.75 percent of the salary of each active employee of the public school. The actual employer contribution rate is prescribed by the Legislature in the General Appropriations Act, which is 0.75 percent of each active employee's pay. The following table shows contributions to the TRS-Care plan by type of contributor.

	<u>Contributions Rates</u>	
	2019	2020
Active Employee	0.65%	0.65%
Non-Employer Contributing Entity (State)	1.25%	1.25%
Employers	0.75%	0.75%
Federal/private Funding remitted by Employers	1.25%	1.25%
FY 2020 Employer Contributions	\$	3,360,668
FY 2020 Member Contributions		2,530,433
2019 Plan Year NECE On-behalf Contributions (State)		4,280,617

Included in the employer contributions listed above, there is an additional surcharge all TRS employers are subject to, regardless of whether or not they participate in the TRS-Care OPEB program. When employers hire a TRS retiree, they are required to pay to TRS-Care a monthly surcharge of \$535 per retiree. During the year ended June 30, 2020, the District paid \$61,525 in retiree surcharges.

TRS-Care received supplemental appropriations from the State of Texas as the Non-Employer Contributing Entity in the amount of \$73.6 million in fiscal year 2019.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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IV. DETAILED NOTES ON ALL FUNDS (Continued)

House Bill 1, 86<sup>th</sup> Texas Legislature, Regular Session, 2019 was passed to provide an additional \$230 million to continue to support the program. The District's proportionate share of this amount totaled \$872,901, representing the 10 months TRS received payments from September 1, 2019 through June 30, 2020. The remaining two months will be recognized in the following fiscal year.

**Actuarial Assumptions:** The total OPEB liability (TOL) in the August 31, 2018 actuarial valuation was rolled forward to August 31, 2019. The actuarial valuation of TRS-Care is similar to the actuarial valuations performed for the pension plan, except that the OPEB valuation is more complex. All of the demographic assumptions, including rates of retirement, termination, and disability, and most of the economic assumptions, including general inflation and salary increases, used in the OPEB valuation were identical to those used in the respective TRS pension valuation. The demographic assumptions were developed in the experience study performed for TRS for the period ending August 31, 2017.

The total OPEB liability in the August 31, 2019 actuarial valuation was determined using the actuarial assumptions below. Those assumptions and other inputs used for members of TRS-Care are identical to the assumptions used in the August 31, 2019 TRS pension actuarial valuation:

Rates of Mortality	General Inflation
Rates of Retirement	Wage Inflation
Rates of Termination	Salary Increases
Rates of Disability Incidence	

**Additional Actuarial Methods and Assumptions:**

Valuation Date	August 31, 2018 rolled forward to August 31, 2019
Actuarial Cost Method	Individual Entry Age Normal
Inflation	2.30%
Single Discount Rate	2.63% as of August 31, 2019
Salary Increases	3.05% to 9.05%, including inflation
Demographic Assumptions	The rates of mortality, retirement, termination and disability incidence are identical to the assumptions used to value the pension liabilities of TRS. The demographic assumptions were developed in the experience study performed for TRS for the period ending August 31, 2017.
Mortality Assumption	The active mortality rates were based on 90 percent of the RP-2014 Employee Mortality Tables for males and females, with full generational mortality using Scale BB. The post-retirement mortality rates for healthy lives were based on the 2018 TRS of Texas Healthy Pensioner Mortality Tables, with full generational projection using the ultimate improvement rates from the most recently published scale (U-MP).

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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IV. DETAILED NOTES ON ALL FUNDS (Continued)

Health Care Trend Rates	Initial medical trend rates of 10.25 percent for Medicare retirees and 7.5 percent for non-Medicare retirees. Initial prescription drug trend rate of 10.25 percent for all retirees. Initial trend rates decrease to an ultimate trend rate of 4.50 percent over a period of 13 years.
Election Rates	Normal Retirement: 65 percent participation prior to age 65 and 50 percent participation after age 65.
Aging Factors	Based on plan specific experience.
Expenses	Third-party administrative expenses related to the delivery of health care benefits are included in the age-adjusted claims costs.
Other Information	
Ad hoc post-employment benefit changes	None
Notes	Assumption changes include a discount rate change from 3.69% as of August 31, 2018 to 2.63% as of August 31, 2019, lower participation rates, and updates to the health care trend assumptions.

The impact of the Cadillac Tax that was expected to return in the plan's fiscal year 2023 has been calculated as a portion of the trend assumption. Assumptions and methods used to determine the impact of the Cadillac Tax include:

- 2018 thresholds of \$850/\$2,292 were indexed annually by 2.30 percent
- Premium data submitted was not adjusted for permissible exclusions to the Cadillac Tax
- There were no special adjustments to the dollar limit other than those permissible for the non-Medicare retirees over 55.

Results indicate that the value of the excise tax would be reasonably represented by a 25 basis point addition to the long-term trend rate assumption. On December 20, 2019, the President signed into law a full repeal of the Cadillac Tax.

**Discount Rate:** A single discount rate of 2.63 percent was used to measure the total OPEB liability. There was a decrease of 1.06 percent in the discount rate since the previous year. Because the plan is essentially a "pay-as-you-go" plan, the single discount rate is equal to the prevailing municipal bond rate. The projection of cash flows used to determine the discount rate assumed that contributions from active members and those of the contributing employers and the non-employer contributing entity are made at the statutorily required rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to *not be able* to make all future benefit payments of current plan members. Therefore, the municipal bond rate was applied to all periods of projected benefit payments to determine the total OPEB liability.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Discount Rate Sensitivity Analysis:** The following schedule shows the impact of the Net OPEB Liability if the discount rate used was 1% less than and 1% greater than the discount rate that was used in measuring the Net OPEB Liability.

	1% Decrease in Discount Rate 1.63%	Current Single Discount Rate 2.63%	1% Increase in Discount Rate 3.63%
District's proportionate share of the Net OPEB Liability:	\$ 259,176,084	\$ 214,670,423	\$ 179,853,606

**Healthcare Cost Trend Rates Sensitivity Analysis:** The following presents the Net OPEB Liability of the plan using the assumed healthcare cost trend rate, as well as what the Net OPEB Liability would be if it were calculated using a trend rate that is one-percentage point lower or one-percentage point higher than the assumed health-care cost trend rate:

	1% Decrease	Current Healthcare Trend Rate	1% Increase
District's proportionate share of the Net OPEB Liability:	\$ 175,120,602	\$ 214,670,423	\$ 267,649,026

**OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEBs:** At June 30, 2020, the District reported a liability of \$214,670,423 for its proportionate share of the TRS's Net OPEB Liability. This liability reflects a reduction for State OPEB support provided to the District. The amount recognized by the District as its proportionate share of the net OPEB liability, the related State support, and the total portion of the net OPEB liability that was associated with the District were as follows:

The District's proportionate share of the collective Net OPEB Liability	\$ 214,670,423
State's proportionate share that is associated with the District	<u>285,248,977</u>
Total	<u>\$ 499,919,400</u>

The Net OPEB Liability was measured as of August 31, 2018 and rolled forward to August 31, 2019 and the Total OPEB liability used to calculate the Net OPEB Liability was determined by an actuarial valuation as of that date. The employer's proportion of the Net OPEB Liability was based on the employer's contributions to the OPEB plan relative to the contributions of all employers to the plan for the period September 1, 2018 through August 31, 2019.

At August 31, 2019, the employer's proportion of the collective Net OPEB Liability was 0.4539328913%, which was a decrease of 0.0259573865% from its proportion measured as of August 31, 2018.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

## IV. DETAILED NOTES ON ALL FUNDS (Continued)

**Changes Since the Prior Actuarial Valuation:** The following were changes to the actuarial assumptions or other inputs that affected measurement of the Total OPEB Liability since the prior measurement period:

- The discount rate changed from 3.69 percent as of August 31, 2018 to 2.63 percent as of August 31, 2019. This change increased the total OPEB liability.
- The health care trend rates were reset to better reflect the plan's anticipated experience. This change increased the total OPEB liability.
- The participation rate for pre-65 retirees was lowered from 70 percent to 65 percent. The participation rate for post-65 retirees was lowered from 75 percent to 50 percent. 25 percent of pre-65 retirees are assumed to discontinue their coverage at age 65. There was no lapse assumption in the prior valuation. These changes decreased the total OPEB liability.
- The percentage of retirees who are assumed to have two-person coverage was lowered from 20 percent to 15 percent. In addition, the participation assumptions for the surviving spouses of employees that die while actively employed was lowered from 20 percent to 10 percent. These changes decreased the total OPEB liability.

There were no changes to benefit terms that affected measurement of the Total OPEB Liability during the measurement period.

For the year ended June 30, 2020, the District recognized OPEB expense of \$7,517,992 and revenue of \$7,517,992 for support provided by the State.

The amount of OPEB expense recognized by the District in the reporting period was \$11,540,919.

At June 30, 2020, the District reported its proportionate share of the TRS's deferred outflows of resources and deferred inflows of resources related to other post-employment benefits (OPEB) from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual economic experience	\$ 10,531,409	\$ 35,128,538
Changes in actuarial assumptions	11,923,268	57,741,076
Difference between projected and actual investment earnings	23,160	-
Changes in proportion and difference between the District's contributions and the proportionate share of contributions	20,926	14,367,331
Contributions paid to TRS subsequent to the measurement date	2,834,204	-
Total	<u>\$ 25,332,967</u>	<u>\$ 107,236,945</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

The \$2,834,204 reported as deferred outflows of resources related to OPEB resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2021. The net amounts of the employer's balances of deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended June 30:	OPEB Expense Amount
2021	\$ (13,629,858)
2022	(13,629,858)
2023	(13,637,354)
2024	(13,641,642)
2025	(13,640,468)
Thereafter	(16,559,002)
	<u>\$ (84,738,182)</u>

**Changes in Net OPEB Liability:**

	Beginning Balance	Additions	Reductions	Ending Balance
Net OPEB Liability	\$ 239,613,609	\$ -	\$ 24,943,186	\$ 214,670,423

**Payable to the OPEB Plan:** At June 30, 2020, the District reported a payable of \$510,504 to the OPEB plan for the outstanding amount of contractually required contributions related to past service costs. Member contributions included in this payable were \$217,499.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, which was effective January 1, 2006, established prescription drug coverage for Medicare beneficiaries known as Medicare Part D. One of the provisions of Medicare Part D allows for the Texas Public School Retired Employee Group Insurance Program (TRS-Care) to receive retiree drug subsidy payments from the federal government to offset certain prescription drug expenditures for eligible TRS-Care participants. Medicare Part D contributions made on behalf of the District's employees for the year ended June 30, 2020, 2019 and 2018 were \$1,869,433, \$1,489,916, and \$1,180,426, respectively. These amounts are recorded as equal revenues and expenditures in the governmental fund financial statements of the District.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****V. Health Care Coverage**

Beginning September 1, 2019, the District established a Self-Funded Medical Plan managed by a third party, Cigna Health and Life Insurance Company (CHLIC). The District contributes up to \$435 per month per full-time employee, at their option. The Self-Funded Medical Plan provides two Preferred Provider Organization (PPO) plan options to choose from and both plans meet the guidelines of the Affordable Health Care Act. Individual employee health claims incurred are self-insured by the District up to \$500,000 per participant annually and CHLIC provides a Stop Loss Insurance Plan of \$500,000 for the plan year.

The accrued liability for the self-insurance health claims of \$2,400,000 includes an estimate of claims incurred but not paid. This liability reported in the fund at June 30, 2020, is in accordance with the requirements of Governmental Accounting Standards Board. Because actual claim liabilities depend on such complex factors, actual results may differ from the estimated liability.

Below is the claims activity and liability as of June 30, 2020:

Unpaid claims, beginning of year	\$ -
Incurred claims	29,114,181
Claim payments	<u>(26,714,181)</u>
Unpaid claims, end of fiscal year	<u>\$ 2,400,000</u>

The District also participates in TRS ActiveCare, sponsored by the Teacher Retirement System of Texas administered by Blue Cross Blue Shield of Texas. TRS ActiveCare provides health care coverage to employees of participating public education entities and their eligible dependents. Authority for the plan can be found in the Texas Insurance Code, Title 8, Subtitle H, Chapter 1579, and in the Texas Administrative Code, Title 34, Part 3, Chapter 41. The plan began operations on September 1, 2002. This is a premium based plan consisting of employee and employer amounts. Payments are made on a monthly basis for all covered employees. Employees have four PPO plan options to choose from for the 2019-2020 plan year. All four meet the guidelines of the Affordable Health Care Act.

**W. Self-Insured Workers' Compensation**

The District self-insures its workers' compensation claims which are administered by a third party, Athens Administration. Estimated incurred but not paid claims are accrued as liabilities of the Workers' Compensation Fund. The District maintains self insured retention per occurrence of \$2,000,000 and employers' liability insurance of \$1,000,000 to limit its claim liability.

The accrued liability for Workers' Compensation self-insurance of \$6,500,000 includes an undiscounted estimate of claims incurred but not paid. This liability reported in the fund at June 30, 2020, is in accordance with the requirements of Governmental Accounting Standards Board. Because actual claim liabilities depend on such complex factors as inflation, changes in legal doctrines, and damage awards, actual results may differ from the estimated liability.

(Continued)



## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

Changes in the balances of claim liabilities for June 30 are as follows:

	2020	2019	2018
Unpaid claims, beginning of year	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000
Incurred claims	1,936,442	3,515,513	3,151,468
Change in estimate	(1,000,000)	-	-
Claim payments	(1,936,442)	(3,515,513)	(3,151,468)
Unpaid claims, end of fiscal year	<u>\$ 6,500,000</u>	<u>\$ 7,500,000</u>	<u>\$ 7,500,000</u>

**X. Revenue from Local and Intermediate Sources**

During the year ending June 30, 2020, revenues from local and intermediate sources consisted of the following:

	General Fund	2016 Capital Projects Fund	Nonmajor Governmental Funds	Total Governmental Funds	Internal Service Funds
Property taxes	\$ 177,195,856	\$ -	\$ 33,129,076	\$ 210,324,932	\$ -
Penalty and interest on taxes	1,313,856	-	218,260	1,532,116	-
Investment income	2,486,739	6,365,642	1,446,112	10,298,493	-
Extracurricular/cocurricular activities	-	-	679,352	679,352	-
Athletics	359,977	-	-	359,977	-
Tuition and fees	244,849	-	-	244,849	-
Re-insurance refund	126,221	-	-	126,221	-
City Refunds/Credit	88,847	-	-	88,847	-
Surplus sales	85,654	-	-	85,654	-
Rent	85,386	-	-	85,386	-
Purchasing Rebates	82,093	-	-	82,093	-
Vehicle inventory tax	59,493	-	-	59,493	-
Services to other districts	50,000	-	-	50,000	-
Transportation revenue	40,169	-	-	40,169	-
Legal restitution	28,657	-	-	28,657	-
Food Service activity	-	-	2,410,757	2,410,757	-
Shared service arrangements	-	-	264,137	264,137	-
Army Youth Program	-	-	90,182	90,182	-
CREED grant	-	-	85,640	85,640	-
Digital Promise grant	-	-	47,205	47,205	-
Local Teach Stipend - R19	-	-	20,795	20,795	-
Print Shop	-	-	-	-	639,702
Workers Compensation	-	-	-	-	3,470,042
Self-insurance - health	-	-	-	-	26,307,141
Health Clinic	-	-	-	-	770,688
Other local revenue	309,988	13,954	47,793	371,735	-
Total	<u>\$ 182,557,785</u>	<u>\$ 6,379,596</u>	<u>\$ 38,439,309</u>	<u>\$ 227,376,690</u>	<u>\$ 31,187,573</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****Y. Other Uses**

Other Uses during the year ended June 30, 2020, consisted of the following:

	General Fund	Debt Service Fund	Total
Western Refining Property Value Settlement	\$ 312,761	\$ 48,229	\$ 360,990
Amount required to be placed in escrow for defeased bonds	-	44,135,157	44,135,157
Total	<u>\$ 312,761</u>	<u>\$ 44,183,386</u>	<u>\$ 44,496,147</u>

Litigation between Western Refining and the El Paso Central Appraisal District for tax years 2015 and 2016 was resolved in 2017. The court ordered Final Judgment reduced the taxable values assessed to Western Refining by \$87,690,035 for the two year period. The result was an overpayment by Western Refining to the District of \$1,082,972. The District agreed to pay back Western Refining over 3 years, with the first payment due in September of 2017 and the final payment of \$360,990 was paid in September of 2019.

**Z. Fund Balances**

As of June 30, 2020, fund balances were composed of the following:

	General Fund	2016 Capital Projects Fund	Nonmajor Governmental Funds	Total
Nonspendable:				
Inventories	\$ 2,003,184	\$ -	\$ -	\$ 2,003,184
Restricted:				
Medicaid Administrative Claiming Program	-	-	355,805	355,805
Retirement of Long-term debt	-	-	32,567,157	32,567,157
2009 QSC-MTN Sinking Fund	-	-	9,377,495	9,377,495
2017 QSC-MTN Sinking Fund	-	-	1,289,892	1,289,892
Bray Trust	-	-	50,729	50,729
Food Service Program	-	-	11,611,479	11,611,479
Campus Activities	-	-	2,088,188	2,088,188
Capital projects	23,944,243	383,122,963	12,240,068	419,307,274
Restricted for State Programs	6,465,141	-	-	6,465,141
Assigned:				
Construction	16,530,480	-	-	16,530,480
Capital expenditures	3,500,000	-	-	3,500,000
Other Assigned	6,766,039	-	-	6,766,039
Unassigned	103,904,121	-	-	103,904,121
Total fund balances	<u>\$ 163,113,208</u>	<u>\$ 383,122,963</u>	<u>\$ 69,580,813</u>	<u>\$ 615,816,984</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

The Net Position for the Health Insurance Fund had a deficit of (\$4,310,405) as of June 30, 2020. Management believes this will not have an impact on the operations of this fund as it is their intention to cover any shortfalls with general fund assets. During fiscal year 2020, the District established this self-insured health plan as an additional insurance option to employees.

As discussed in Note AA, as of June 30, 2020, the District has a total of \$274,607,179 of encumbrances of operating funds shown as restricted or assigned in the general fund and capital projects funds that rolled over into the next fiscal year. Other assigned fund balance in the General Fund includes encumbrances of \$2,969,816 and an assignment for self insurance activities of \$194,554. The remaining balance of \$3,601,669 in other assigned is for future District expenditures.

**AA. Encumbrances**

The District utilizes encumbrance accounting in its governmental funds. Encumbrances represent commitments related to contracts not yet performed and are used to control expenditures for the year and to enhance cash management. The encumbrance account does not represent an expenditure for the period, only a commitment to expend resources. Encumbrances for goods or purchased services are documented by purchase orders or contracts. Under Texas law, appropriations lapse at year end, and encumbrances outstanding at that time are to be either canceled or appropriately provided for in the subsequent year's budget. Encumbrance accounting is employed as an extension of formal budgetary integration for the District's funds. At June 30, 2020, certain amounts which were previously restricted or assigned for specific purposes have been encumbered in the governmental funds. Significant encumbrances included in governmental fund balances are as follows:

	<u>Encumbrances included in:</u>		
	<u>Restricted Fund Balance</u>	<u>Assigned Fund Balance</u>	<u>Total</u>
General Fund	\$ 16,780,949	\$ 7,907,581	\$ 24,688,530
2008 Capital Projects Fund	8,445,442	-	8,445,442
2016 Capital Projects Fund	238,522,618	-	238,522,618
PFC Capital Projects Fund	2,950,589	-	2,950,589
Total	<u>\$ 266,699,598</u>	<u>\$ 7,907,581</u>	<u>\$ 274,607,179</u>

**BB. Litigation**

The District is the defendant in a number of lawsuits arising principally in the normal course of operations. The District maintains insurance with deductibles up to \$50,000 per claim to cover the various lawsuits. In the opinion of management, the outcome of these lawsuits will not have a material adverse effect on the accompanying basic financial statements and accordingly, no provision has been accrued.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****CC. Construction and Other Significant Commitments and Contingencies****Construction Commitments**

The District has active construction projects as of June 30, 2020, including renovations and site improvements. All accumulated resources for capital projects are restricted or assigned for construction commitments. As of June 30, 2020, the construction work in progress and estimated commitments with contractors on various projects are as follows:

	Spent To Date	Remaining Commitment
Athletic Improvements	\$ 6,208,637	\$ 19,466,470
Land/Building improvements and consolidations	281,959,083	352,029,444
New Northeast Middle School	2,426,210	48,563,966
New Central Administrative Building 1014 N. Stanton	12,876,560	3,794,626
New Central Administrative Building 1100 N. Stanton	16,106,477	8,181,983
Planetarium Relocation (Federal CDBG)	700,104	250,997
New Delta Operations Center (DOC)	12,282,524	105,927
	<u>\$ 332,559,595</u>	<u>\$ 432,393,413</u>

**Technology Commitments**

The District has a Technology E-Rate project in process as of June 30, 2020. The work in process and estimated commitments with vendors on these projects are as follows:

	Spent To Date	Remaining Commitment
Network Electronics Project	\$ 8,327	\$ 736,000

**Federal and State Funding**

The District participates in numerous state and federal grant programs that are subject to audit by the Texas Education Agency and various Federal and/or State audit agencies. These programs have complex compliance requirements, and should State or Federal auditors discover areas of material noncompliance, those District funds may be subject to refund, if so determined by administrative audit review.

In the opinion of administration, there are no significant contingent liabilities relating to compliance with the rules and regulations governing the respective grants; therefore, no provision has been recorded in the accompanying financial statements for such contingencies.

**Vacation and Non-Duty Leave Time**

Vacation days are earned by certain employees based upon their contract year and how much of their contract year they have completed. Unused leave time rolls forward, however, any unused days are forfeited six months after the applicable contract year is completed. Upon separation, any remaining balance earned is paid to the employee at their current rate of pay.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)**

Non-duty days are work days on the District calendar in which the employee may choose not to work. If the employee does not use these days, they are considered days in excess of their contract. Unused days roll forward, however, any unused days are forfeited six months after the applicable contract year is completed for exempt employees; non-exempt employees are paid. In some instances, the employees may be eligible to receive payment for the unused days if separating from the District at the end of their contract.

It is District policy that leave time be used for its intended purpose, as noted above. Management has determined that any resulting obligation at the end of the fiscal year would be insignificant and immaterial to the financial statements. As such, no provision has been recorded in the accompanying fund financial statements.

**DD. Shared Service Arrangements**

The District is the fiscal agent for a Shared Services Arrangement (“SSA”) which provides a Regional Day School Program for the deaf. All services are provided by the fiscal agent. The member districts provide the funds to the fiscal agent. According to guidance provided in TEA’s Resource Guide, the District has accounted for the fiscal agent’s activities of the SSA in Special Revenue Funds 315, 340, 435, and 446, Shared Services Arrangements - Deaf Education.

Expenditures of the SSA are summarized below:

El Paso I.S.D.	\$	305,595
Socorro I.S.D.		271,031
Ysleta I.S.D.		213,304
Clint I.S.D.		141,851
Canutillo I.S.D.		112,911
San Elizario I.S.D.		20,160
Fabens I.S.D.		10,080
Anthony I.S.D.		6,000
Total	\$	<u>1,080,932</u>

**EE. Risk Management**

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Board maintains insurance policies acquired from independent insurance carriers covering the following: property insurance, automobile liability insurance (effective 9/1/13 the district was self-insured for auto physical damage to District vehicles), educators legal liability insurance, general liability insurance, law enforcement liability insurance, commercial crime insurance, storage tank system third party liability and cleanup insurance, excess workers' compensation and employers' liability insurance and student accident insurance. There have been no significant reductions in insurance coverage from prior years and settlements have not exceeded insurance coverage in each of the past three years.

(Continued)

## EL PASO INDEPENDENT SCHOOL DISTRICT

## NOTES TO THE BASIC FINANCIAL STATEMENTS

## FOR THE FISCAL YEAR ENDED JUNE 30, 2020

**IV. DETAILED NOTES ON ALL FUNDS (Continued)****FF. Related Party Transactions**

From time to time, the District may enter into transactions with related parties through the normal course of business. If a Board member has a conflict of interest, proper documentation is completed and he/she is required to abstain from any discussion or voting regarding the matter. Management is not aware of any material related party transactions that occurred during the year ending June 30, 2020.

**GG. EPISD Education Foundation**

The EPISD Education Foundation (the Foundation) is a not-for-profit organization which was organized to provide scholarship funds to students and classroom impact grants for teachers of the El Paso Independent School District. The members of the Board of Directors of the Foundation are either appointed or elected. The Superintendent of El Paso Independent School District (EPISD) has the right to appoint one voting member of the Board of Directors, and the EPISD Board selects two members from the EPISD Board. The remaining members make up a majority and are elected by the current Board of Directors of the Foundation. The Foundation's financial condition and results of operations are not included in the District's financial statements. Beginning in 2014, activity was transferred to the Paso del Norte Foundation as an agency advised fund.

**HH. Other Post Employment Benefits**

The District pays the premiums for group life insurance for retired employees. The policies provide for a \$1,000 benefit. During the year ending June 30, 2020, the District paid a total of \$2,279 in premiums for retired employees which is approximately four cents per employee per month. Management does not anticipate that the estimated liability related to this obligation would be material to the government-wide financial statements and as such, an accrual has not been made.

**II. Top Ten Taxpayers**

The following businesses represent the top ten taxpayers for the District:

<u>Name</u>	<u>Market Value</u>	<u>Taxable Value</u>
Western Refining Co. LP	\$ 517,594,790	\$ 500,816,217
El Paso Electric Co.	217,818,425	205,279,299
Simon Property Group	127,863,268	127,863,268
Sierra Providence Physical Rehabilitation Hospital	110,057,310	110,057,310
Wal-Mart Stores Inc.	105,205,600	105,205,600
Hawkins & I-10 Acquisition Co. LP	99,978,869	99,978,869
Texas Gas Service	79,437,830	79,437,830
Spectrum Gulf Coast LLC	60,306,260	60,306,260
Union Pacific Railroad Co.	59,982,604	59,982,604
United Parcel Service Inc.	48,522,226	48,522,226
	<u>\$ 1,426,767,182</u>	<u>1,397,449,483</u>

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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**IV. DETAILED NOTES ON ALL FUNDS (Continued)****JJ. Significant Event - COVID-19**

In January 2020, the President of the United States declared a public health emergency for the COVID-19 pandemic. Subsequently, on March 13th, districts across the state of Texas were ordered to shut down and initiate distance learning through the remainder of the 2019-2020 school year. With the pandemic ongoing, the District had to begin its 2020-2021 academic year via distance learning as well.

The Texas Education Agency awarded additional federal funds to districts under the CARES Act to help fund the additional costs incurred to provide distance learning and to prevent, prepare for, and respond to the pandemic. This program was tested as a major federal program, however, official spending guidelines have not been released from the Office of Management and Budget (OMB) for the CARES Act as of the date of these financial statements. As a result, general requirements were used as a guideline for testing, and certain costs could be questioned and deemed unallowable upon release of the guidance from OMB.

In addition, the state allotments distributed to districts by the TEA will also be impacted, the effects of which are also unknown. The District continues to closely monitor its budget and cash flows to address the needs of its students and personnel. Although future developments and mitigation strategies are out of the control of the District, EPISD is committed to fulfilling its mission to graduate every student prepared for higher learning.

**KK. Subsequent Events**

On July 22, 2020, the District issued Unlimited Tax Refunding Bonds, Taxable Series 2020A in the amount of \$115,054,970. The bonds were issued at a premium, and refunded \$32,250,000 of the Unlimited Tax School Refunding Bonds, Series 2013; \$40,430,000 of the Unlimited Tax School Refunding Bonds, Series 2015; and \$42,375,000 of the Unlimited Tax School Refunding Bonds, Series 2015A. Bond payments are payable on February 15 and August 15 of each year, commencing on August 15, 2020. The Bonds final principal payment is on August 15, 2033. The total cash flow savings from the refunding was \$12,558,954 and the net present value savings was \$11,132,338.

On August 11, 2020 the District entered into an Equipment Lease Purchase Agreement with US Bancorp for \$9,562,055. The lease purchase is to finance the second phase of an energy saving performance contract.

(Continued)

## NOTES TO THE BASIC FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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IV. DETAILED NOTES ON ALL FUNDS (Continued)LL. New Accounting Pronouncements

The District has not completed the process of evaluating the impact on its financial position that will result from adopting the following Governmental Accounting Standards Board (GASB) Statements:

- GASB No. 84, *Fiduciary Activities*, effective for fiscal years beginning after December 15, 2019. GASB No. 84 establishes criteria for identifying fiduciary activities of all state and local governments.
- GASB No. 87, *Leases*, effective for fiscal years beginning after June 15, 2021. GASB No. 87 requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases.
- GASB No. 89, *Accounting for Interest Cost incurred before the End of a Construction Period*, effective for periods beginning after December 15, 2020. GASB No. 89 requires that interest costs incurred during a construction period be recognized as an expense for business-type activity.
- GASB No. 90, *Majority Equity Interests - an Amendment of GASB Statements No. 14 and No. 61*, effective for periods beginning after December 15, 2019. GASB No. 90 amends the method of reporting majority equity interest.
- GASB No. 91, *Conduit Debt Obligations*, effective for periods beginning after December 15, 2021. GASB No. 91 requires issuers to disclose information about their conduit debt obligations.
- GASB No. 94, *Public-Private and Public-Public Partnerships and Availability Arrangement*, effective for periods beginning after June 15, 2022. GASB No. 94 improves financial reporting by addressing issues related to public private and public-public partnership arrangements as well as availability payment arrangements.



**REQUIRED SUPPLEMENTARY INFORMATION**

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE  
BUDGET AND ACTUAL - GENERAL FUND  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	Budgeted Amounts		Actual Amounts (GAAP BASIS)	Variance With Final Budget Positive or (Negative)
	Original	Final		
REVENUES:				
5700 Total Local and Intermediate Sources	\$ 194,812,977	\$ 179,664,261	\$ 182,557,785	\$ 2,893,524
5800 State Program Revenues	300,035,189	343,864,323	344,977,633	1,113,310
5900 Federal Program Revenues	15,839,739	14,450,000	15,626,204	1,176,204
5020 Total Revenues	510,687,905	537,978,584	543,161,622	5,183,038
EXPENDITURES:				
Current:				
0011 Instruction	280,223,309	303,544,083	301,506,233	2,037,850
0012 Instructional Resources and Media Services	7,417,831	8,100,757	8,156,538	(55,781)
0013 Curriculum and Instructional Staff Development	18,088,002	20,605,390	17,783,177	2,822,213
0021 Instructional Leadership	4,877,956	5,129,263	4,717,523	411,740
0023 School Leadership	36,120,969	38,550,701	38,472,567	78,134
0031 Guidance, Counseling, and Evaluation Services	18,164,237	19,100,025	18,784,445	315,580
0032 Social Work Services	3,993,609	4,383,177	4,260,325	122,852
0033 Health Services	6,117,752	6,856,640	6,855,312	1,328
0034 Student (Pupil) Transportation	13,644,581	13,706,181	11,951,720	1,754,461
0036 Extracurricular Activities	14,184,706	14,609,497	12,460,160	2,149,337
0041 General Administration	14,251,179	14,815,007	14,010,740	804,267
0051 Facilities Maintenance and Operations	50,053,550	54,629,966	51,373,438	3,256,528
0052 Security and Monitoring Services	6,938,898	8,156,319	7,143,233	1,013,086
0053 Data Processing Services	9,394,944	8,659,367	7,766,681	892,686
0061 Community Services	89,295	89,295	36,112	53,183
Debt Service:				
0071 Principal on Long-Term Debt	599,362	599,362	599,362	-
0072 Interest on Long-Term Debt	1,557,754	1,556,254	1,551,808	4,446
0073 Bond Issuance Cost and Fees	10,000	232,953	232,687	266
Capital Outlay:				
0081 Facilities Acquisition and Construction	4,984,256	59,128,818	20,047,310	39,081,508
Intergovernmental:				
0099 Other Intergovernmental Charges	2,851,686	2,851,686	2,388,693	462,993
6030 Total Expenditures	493,563,876	585,304,741	530,098,064	55,206,677
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	17,124,029	(47,326,157)	13,063,558	60,389,715
OTHER FINANCING SOURCES (USES):				
7911 Capital Related Debt Issued	-	17,390,000	17,390,000	-
7912 Sale of Real and Personal Property	-	3,163,550	5,890,191	2,726,641
7916 Premium or Discount on Issuance of Bonds	-	331,453	331,453	-
7949 Other Resources	17,124,028	-	-	-
8911 Transfers Out (Use)	(16,811,267)	(16,811,267)	(16,811,267)	-
8949 Other (Uses)	(312,761)	(312,761)	(312,761)	-
7080 Total Other Financing Sources (Uses)	-	3,760,975	6,487,616	2,726,641
1200 Net Change in Fund Balances	17,124,029	(43,565,182)	19,551,174	63,116,356
0100 Fund Balance - July 1 (Beginning)	143,562,034	143,562,034	143,562,034	-
3000 Fund Balance - June 30 (Ending)	\$ 160,686,063	\$ 99,996,852	\$ 163,113,208	\$ 63,116,356

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
BUDGET AND ACTUAL - GENERAL FUND

FOR THE YEAR ENDED JUNE 30, 2020

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**STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY**

Each school district in Texas is required by law to prepare annually a budget of anticipated revenues and expenditures for the General fund before the beginning of the fiscal year. The District's administration determines budgetary funding priorities and the budgets are prepared in the same basis of accounting that is used for reporting in accordance with generally accepted accounting principles. The annual budget, which is prepared on the modified accrual basis of accounting, must be adopted by the Board at a scheduled meeting after giving ten days public notice of the meeting. The District's administration performs budget reviews during the year in which budget requirements are re-evaluated and revisions are recommended to the Board. The Board must approve amendments to the budget at the fund and functional expenditure categories or revenue object accounts as defined by the TEA. Expenditures may not legally exceed budgeted appropriations, as amended, at the function level by fund. Unexpended appropriations lapse at year-end.

The following procedures are followed in establishing the budgetary data reflected in the financial statements:

1. Prior to June 19, the District prepares a budget for the next succeeding fiscal year beginning July 1. The operating budget includes proposed expenditures and the means of financing them.
2. A meeting of the Board is then called for the purpose of adopting the proposed budget. At least ten days' public notice of the meeting must be given.
3. On April 30, 2019, the budget was legally enacted through the approval of a motion by the Board. Once a budget is approved, it can only be amended at the function and fund level by approval of a majority of the members of the Board. Amendments are presented to the Board at its regular meetings. Each amendment must have Board approval. As required by law, such amendments are made before the fact, are reflected in the official minutes of the Board, and are not made after fiscal year end. Because the District has a policy of careful budgetary control, several amendments were necessary during the year.
4. Each budget is controlled by the budget director at the revenue and expenditure function/object level. Budgeted amounts are as amended by the Board. All budget appropriations lapse at year end, and outstanding encumbrances at year-end are re-appropriated in the next year.

A negative variance was identified in the following area: Function 12 - Instructional Resources and Media Services, in the amount of \$56 thousand. The variance was attributed to retiree leave payouts and personnel related costs.

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF THE DISTRICT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY  
TEACHER RETIREMENT SYSTEM OF TEXAS  
FOR THE YEAR ENDED JUNE 30, 2020

	FY 2020 Plan Year 2019	FY 2019 Plan Year 2018	FY 2018 Plan Year 2017
District's Proportion of the Net Pension Liability (Asset)	0.31795588%	0.344247074%	0.3357152%
District's Proportionate Share of Net Pension Liability (Asset)	\$ 165,283,406	\$ 189,481,944	\$ 107,343,663
State's Proportionate Share of the Net Pension Liability (Asset) Associated with the District	275,084,593	310,719,469	191,585,514
Total	<u>\$ 440,367,999</u>	<u>\$ 500,201,413</u>	<u>\$ 298,929,177</u>
District's Covered Payroll	\$ 374,416,393	\$ 384,687,132	\$ 377,281,655
District's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	44.14%	49.26%	28.45%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.24%	73.74%	82.17%

Note: GASB Codification, Vol. 2, P20.183 requires that the information on this schedule be data from the period corresponding with the periods covered as of the measurement dates of August 31, 2019 for year 2020, August 31, 2018 for year 2019, August 31, 2017 for year 2018, August 31, 2016 for year 2017, August 31, 2015 for year 2016 and August 31, 2014 for year 2015.

This schedule shows only the years for which this information is available. Additional information will be added until 10 years of data are available and reported.

FY 2017 Plan Year 2016		FY 2016 Plan Year 2015	FY 2015 Plan Year 2014		
0.3538133%		0.3620999%	0.2401539%		
\$	133,700,793	\$	127,997,495	\$	64,148,427
234,758,266		234,729,990	207,838,673		
\$ 368,459,059		\$ 362,727,485	\$ 271,987,100		
\$	377,316,904	\$	373,930,999	\$	374,880,694
35.43%		34.23%	17.11%		
78.00%		78.43%	83.25%		

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF DISTRICT'S CONTRIBUTIONS FOR PENSIONS  
TEACHER RETIREMENT SYSTEM OF TEXAS  
FOR FISCAL YEAR 2020

	2020	2019	2018
Contractually Required Contribution	\$ 12,285,012	\$ 11,154,052	\$ 11,459,304
Contribution in Relation to the Contractually Required Contribution	12,285,012	11,154,052	11,357,520
Contribution Deficiency (Excess)	\$ -	\$ -	\$ 101,784
District's Covered Payroll	\$ 389,298,717	\$ 375,049,174	\$ 385,429,416
Contributions as a Percentage of Covered Payroll	3.16%	2.97%	2.97%

Note: GASB Codification, Vol. 2, P20.183 requires that the data in this schedule be presented as of the District's respective fiscal years as opposed to the time periods covered by the measurement dates ending August 31 of the preceding year.

This schedule shows only the years for which this information is available. Additional information will be added until 10 years of data are available and reported.

# Exhibit 16

EXHIBIT G-3

2017		2016		2015		2014		2013		2012	
\$	11,052,123	\$	10,962,083	\$	10,210,794	\$	6,104,979	\$	5,347,398	\$	4,915,175
	11,052,123		10,962,083		10,210,794		6,104,979		5,347,398		4,915,175
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	377,714,149	\$	377,287,614	\$	371,221,286	\$	374,598,981	\$	367,948,382	\$	368,763,102
	2.93%		2.91%		2.75%		1.63%		1.45%		1.33%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
TEACHER RETIREMENT SYSTEM FOR PENSIONSFOR THE YEAR ENDED JUNE 30, 2020

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***Changes of Benefit Terms***

There were no changes of benefit terms that affected measurement of the total pension liability during the measurement period.

***Changes of Assumptions***

The following were changes to the actuarial assumptions or other inputs that affected measurement of the total pension liability since the prior measurement period.

- The single discount rate as of August 31, 2018 was a blended rate of 6.907 percent and that has changed to the long-term rate of return of 7.25 percent as of August 31, 2019.
- With the enactment of SB 3 by the 2019 Texas Legislature, an assumption has been made about how this would impact future salaries. It is assumed that eligible active members will each receive a \$2,700 increase in fiscal year 2020. This is in addition to the salary increase expected in the actuarial assumptions.
- The Texas legislature approved funding for a 13<sup>th</sup> check. All eligible members retired as of December 31, 2018 will receive an extra annuity check in September 2019 in either the matching amount of their monthly annuity payment or \$2,000, whichever is less.



EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF THE DISTRICT'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY  
TEACHER RETIREMENT SYSTEM OF TEXAS  
FOR THE YEAR ENDED JUNE 30, 2020

	FY 2020 Plan Year 2019	FY 2019 Plan Year 2018	FY 2018 Plan Year 2017
District's Proportion of the Net Liability (Asset) for Other Postemployment Benefits	0.453932891%	0.479890278%	0.479833937%
District's Proportionate Share of Net OPEB Liability (Asset)	\$ 214,670,423	\$ 239,613,609	\$ 208,661,779
State's Proportionate Share of the Net OPEB Liability (Asset) Associated with the District	285,248,977	320,698,545	284,864,539
Total	<u>\$ 499,919,400</u>	<u>\$ 560,312,154</u>	<u>\$ 493,526,318</u>
District's Covered Payroll	\$ 374,416,393	\$ 384,687,132	\$ 377,281,655
District's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered Payroll	57.33%	62.29%	55.31%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	2.66%	1.57%	0.91%

Note: GASB Codification, Vol. 2, P50.238 states that the information on this schedule should be determined as of the measurement date. Therefore the amounts reported for FY 2020 are for the measurement date of August 31, 2019. The amounts for FY 2019 are for the measurement date August 31, 2018. The amounts for FY 2018 are based on the August 31, 2017 measurement date.

This schedule shows only the years for which this information is available. Additional information will be added until 10 years of data are available and reported.

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF DISTRICT'S CONTRIBUTIONS FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB)  
TEACHER RETIREMENT SYSTEM OF TEXAS  
FOR FISCAL YEAR 2020

	2020	2019	2018
Contractually Required Contribution	\$ 3,360,668	\$ 3,225,210	\$ 3,190,301
Contribution in Relation to the Contractually Required Contribution	3,360,668	3,225,210	3,151,204
Contribution Deficiency (Excess)	\$ -	\$ -	\$ 39,097
District's Covered Payroll	\$ 389,298,717	\$ 375,049,174	\$ 385,429,416
Contributions as a Percentage of Covered Payroll	0.86%	0.86%	0.83%

Note: GASB Codification, Vol. 2, P50.238 requires that the data in this schedule be presented as of the District's respective fiscal years as opposed to the time periods covered by the measurement dates ending August 31 of the preceding year.

Information in this schedule should be provided only for the years where data is available. Eventually 10 years of data should be presented.

2017		2016	
\$	2,502,519	\$	2,571,017
	2,502,519		2,571,017
\$	-	\$	-
\$	377,714,149	\$	377,287,614
	0.66%		0.68%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
TEACHER RETIREMENT SYSTEM FOR OPEBFOR THE YEAR ENDED JUNE 30, 2020

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***Changes of Benefit Terms Since the Prior Measurement Period***

There were no changes of benefit terms that affected measurement of the total OPEB liability during the measurement period.

***Changes Since the Prior Actuarial Valuation***

The following were changes to the actuarial assumptions or other inputs that affected measurement of the Total OPEB liability since the prior measurement period:

- The discount rate changed from 3.69 percent as of August 31, 2018 to 2.63 percent as of August 31, 2019. This change increased the total OPEB liability.
- The health care trend rates were reset to better reflect the plan's anticipated experience. This change increased the total OPEB liability.
- The participation rate for pre-65 retirees was lowered from 70 percent to 65 percent. The participation rate for post-65 retirees was lowered from 75 percent to 50 percent. 25 percent of pre-65 retirees are assumed to discontinue their coverage at age 65. There was no lapse assumption in the prior valuation. These changes decreased the total OPEB liability.
- The percentage of retirees who are assumed to have two-person coverage was lowered from 20 percent to 15 percent. In addition, the participation assumptions for the surviving spouses of employees that die while actively employed was lowered from 20 percent to 10 percent. These changes decreased the total OPEB liability.

**COMBINING AND OTHER STATEMENTS**

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**NONMAJOR GOVERNMENTAL FUNDS**


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The Nonmajor Governmental Funds, which are made up of Special Revenue Funds and Debt Service Funds, are used to account for funds that are legally restricted for specified purposes excluding capital projects.

Special Revenue Funds

Texas Education for Homeless Children & Youth (Fund 206) - This fund is to be used to account, on a project basis, for funds allocated to local educational agencies to enable schools to provide a variety of staff development and supplemental services, including in-service training, counseling, psychological services and tutoring. This program is authorized under P.L. 107-110, McKinney-Vento Homeless Education Assistance Improvement of 2001 as amended by NCLB Act of 2001, Title X, Part C.

ESSA Title I, Part A, D, and SIP (Fund 211) - This fund is to be used to account, on a project basis, for funds allocated to local educational agencies to enable schools to provide opportunities for children served to acquire the knowledge and skills contained in the challenging State content standards and to meet the challenging State performance standards developed for all children. This program is authorized under P.L. 107-110.

ESSA Title I, Part C, Education of Migratory Children (Fund 212) - This fund is to be used to account, on a project basis, for funds allocated for the purpose of the Migrant Education Program. To design and support programs that help migrant students overcome the challenges of mobility, cultural and language barriers, social isolation, and other difficulties associated with a migratory lifestyle. These efforts are aimed at helping migrant students succeed in school and successfully transition to post-secondary education and/or employment.

Adult Education Federal (Fund 220) - This fund is to be used to account, on a project basis, for funds granted to provide or support programs for adult education and literacy services to adults who are beyond compulsory school age attendance, and do not have a high school diploma, or lack sufficient mastery of basic educational skills to function effectively in society, or are unable to speak, read or write the English language; and are not enrolled in school. Educational services include basic educational skills (reading, writing, speaking and mathematics), English as a Second Language and secondary level competencies for acquisition of a high school diploma or equivalent. This includes sections 322, 326, and 353 under P.L. 91.230 as amended by P.L. 102.73, The National Literacy Act.

TANF Family Assistance (Fund 223) - This fund is to be used to account, on a project basis, for funds granted to provide education services to undereducated adult recipients of cash assistance under Temporary Assistance for Needy Families (TANF). Recipients of benefits are required to participate in adult basic education or job training programs as a condition of eligibility. Educational services include basic educational skills (reading, writing, speaking, and mathematics), English as a Second Language instruction and secondary level competencies for acquisition of a high school diploma or its equivalent. This program is authorized under P.L. 104-193.

IDEA – Part B, Formula (Fund 224) - This fund is to be used to account, on a project basis, for funds granted to operate educational programs for children with disabilities. This funding also includes capacity building and improvement (silver) sub-grants. This program is authorized under P.L. 108-446.

IDEA – Part B, Preschool (Fund 225) - This fund is to be used to account, on a project basis, for funds granted for preschool children with disabilities. This program is authorized under P.L. 105-17.

National Breakfast and Lunch Program (Fund 240) - This fund is used to account for programs using federal reimbursement revenues originating from the United States Department of Agriculture and includes allowable expenditures, as determined under the National School Lunch Program, for the operation and improvement of the National Breakfast and Lunch Programs.

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**NONMAJOR GOVERNMENTAL FUNDS**


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Summer Feeding Program (Fund 242) - This fund is to be used to account, on a project basis, for funds received from the Texas Department of Agriculture that are awarded for meals provided to the community based on the average number of daily participants.

Carl D. Perkins Career & Technical Basic Grant (Fund 244) - This fund is to be used to account, on a project basis, for funds granted to provide career and technology education to develop new and/or improve career and technology education programs for paid and unpaid employment. Full participation in the basic grant is from individuals who are members of special populations. This program is authorized by P.L. 109-270.

ESSA, Title II, Part A, Supporting Effective Instruction (Fund 255) - This fund is used to provide financial assistance to LEAs to increase student academic achievement through improving teacher and principal quality and increasing the number highly qualified teachers in classrooms and highly qualified principals in schools, and hold LEAs accountable for improving student academic achievement. This program is authorized under P.L. 107-110.

Title III, Part A – English Language Acquisition (Fund 263) - This fund is used to account, on a project basis, for funds granted to improve the education of limited English proficient children, by assisting the children to learn English and meet State academic content and student academic achievement standards. This program is authorized under P.L. 107-110.

Medicaid Administrative Claiming Program – MAC (Fund 272) - This fund is used to account, on a project basis, for funds allocated to local education agencies for reimbursement of eligible administrative costs for activities attributed to the implementation of the Medicaid state plan.

EPISD Gene Roddenberry Planetarium (Fund 288) - This fund is to be used to account, on a project basis, for funds granted to relocate the Planetarium to Crosby Elementary multipurpose facility. The El Paso City Council allocated certain Community Development Block Grant (CDBG) funds under the 44th year Community Development Program to EPISD (Sub recipient) for purposes of design and construction improvements to the indoor and outdoor Planetarium and Star Gazing area located at 9465 Roanoke Drive, El Paso, TX 79924.

Other Federal Special Revenue Funds (Fund 289) - This fund is to be used to account, on a project basis, for federally funded special revenue funds that have not been previously mentioned. This fund includes Promoting Student Achievement; Department of Defense Education Activity (DoDEA) - Military Connected Schools; (DoDEA) - Hands on, Mind on Math Engagement for 21st Century Leaders; (DoDEA) - Gateway to STEM Careers for Military Connected Schools; Office of Violence Against Women; Title IV Part-A Student Support and Academic Enrichment; Title VI Summer LEP; Department of Justice (DOJ) - Specialized Services to At-Risk Students; DOJ - School Violence Prevention Program; Fed COPS Hiring; Rifle Resistant Grant, Bulletproof Vest Partnership and Selective Traffic Enforcement Program (STEP). These programs are designed to address the unique and culturally related needs of students.

SSA IDEA, Part B – Discretionary Deaf (Fund 315) - This fund classification is used to account for a shared service arrangement for funds used to support an education service center basic special education component. These funds are used for support of students in care and treatment or hospital facilities, enhance Braille production, and other emerging needs.

SSA IDEA, Part C – Deaf - Early Intervention (Fund 340) - This fund is used to account, on a project basis, for funds granted to assist local Regional Day School for the Deaf programs and the Texas School for the Deaf in providing direct services to hearing impaired infants to toddlers, age's birth through two years of age. This program provides supplemental and appropriate series to eligible students that are provided by a certified and trained teacher. This program is authorized under P.L. 101-119.

Adult Basic Education State (Fund 381) - This fund classification is to be used to account, on a project basis, for funds granted to provide or support programs for adult education and literacy services to adults 16 and above, who do not have a high school diploma and are out of school. Funds can be used for same purposes as federal adult education funds.

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**NONMAJOR GOVERNMENTAL FUNDS**


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Advanced Placement Incentives (Fund 397) - This fund classification is used to account, on a project basis, for funds awarded to school districts under the Texas Advanced Placement Award Incentive Program, Chapter 28, Subchapter C, TEC.

State Instructional Materials (Fund 410) - This fund is used to account, on a project basis, for funds awarded to school districts under the textbook allotment.

Other State Special Revenue Funds (Fund 429) - These are state funded special revenue funds not otherwise listed. This fund includes Ready to Read License; Veterans AFF Grant; Law Enforcement Officer Standard and Education (LEOSE); Literacy Achievement Academy; Mathematics Achievement Academy: MIZ, Cycle 2 Grants; Lone Star STEM Grants; Technology Lending; School Safety and Security Grant; SPED Fiscal Support; TX Parks and Wildlife Dept.- Archery Program; Jobs and Education for Texans and the Office of the Governor Truancy Prevention Grant. The programs are designed to improve student performance by fostering open, supportive and collaborative campus cultures that allow teachers to seek and attain growth within their field.

SSA Regional Day School - Deaf (Fund 435) - This fund is used by the fiscal agent of a shared services arrangement to account, on a project basis, for funds allocated for staff and activities of the Regional Day School Program for the Deaf.

SSA-RDSPD Tuition Funds (Fund 446) - This fund is used to account for student services provided by the Regional Day School Program for the deaf. The District is the fiscal agent for a Shared Service Arrangement with other member districts in the area.

Campus Activity Funds (Fund 461) - This fund is to be used to account for transactions related to campus principal's activity fund. The monies generated are not subject to recall by the Board of Trustees into the general fund.

Other Local Special Revenue Funds (Fund 499) - These are locally funded special revenue funds not otherwise listed. This fund includes Region 13 Educator Certification Program; 3M Ingenuity Grant; Local Teacher Stipends - Region 19; Local National Science Foundation, Digital Promise Grant; Army Youth Program in Your Neighborhood; Dollar General Literacy Foundation; El Paso Community Foundation and the Council on Regional Economic Expansion and Educational Development (CREEED). These programs are designed to increase and strengthen community capacity in support of military families, increase professional development and workforce development opportunities and enhance college readiness by providing leadership and resources in addressing local challenges and opportunities in El Paso.

#### Debt Service Funds

2009 QSC-MTN Sinking (Fund 575) - This fund is used to account for resources accumulated to pay for principal and interest on the Qualified School Construction Maintenance Tax Notes, Series 2009.

2017 QSC-MTN Sinking (Fund 577) - This fund is used to account for resources accumulated to pay for principal and interest on the Qualified School Construction Maintenance Tax Notes, Series 2017.

Debt Service Fund (Main) (Fund 599) - This fund accounts for resources accumulated and payments made for annual principal and interest on long-term general obligation debt of governmental funds.



**NONMAJOR GOVERNMENTAL FUNDS**

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Capital Projects Fund

2008 Capital Projects Fund (Fund 688) - This fund accounts for the construction activity related to the 2008 bonds to construct, renovate, acquire and equip school buildings in the District.

Public Facilities Corporation Capital Projects Fund (Fund 690) - This fund is used to account for the El Paso Independent School District Administrative Public Facility Corporation (Corporation), a component unit that was organized exclusively to act on behalf of the District to finance, refinance, or provide the costs of certain public facilities. The Corporation accounts for construction costs related to the central administration project.

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING BALANCE SHEET  
NONMAJOR GOVERNMENTAL FUNDS  
JUNE 30, 2020

Data Control Codes		206 TX Ed. for Homeless Children	211 ESSA Title I Part A, D, and SIP	212 ESSA Title I Part C Migrant	220 Adult Education Federal
<b>ASSETS</b>					
1110	Cash and Cash Equivalents	\$ -	\$ -	\$ -	\$ -
1220	Property Taxes - Delinquent	-	-	-	-
1230	Allowance for Uncollectible Taxes	-	-	-	-
1240	Due from Other Governments	7,895	4,980,073	65,629	99,508
1250	Accrued Interest	-	-	-	-
1260	Due from Other Funds	-	-	-	-
1290	Other Receivables	-	-	-	-
1800	Restricted Assets	-	-	-	-
1900	Long Term Investments	-	-	-	-
1000	Total Assets	<u>\$ 7,895</u>	<u>\$ 4,980,073</u>	<u>\$ 65,629</u>	<u>\$ 99,508</u>
<b>LIABILITIES</b>					
2110	Accounts Payable	\$ -	\$ 26,773	\$ 61	\$ -
2160	Accrued Wages Payable	157	2,003,297	32,842	39,935
2170	Due to Other Funds	7,738	2,828,931	32,726	56,443
2200	Accrued Expenditures	-	121,072	-	3,130
2300	Unearned Revenue	-	-	-	-
2000	Total Liabilities	<u>7,895</u>	<u>4,980,073</u>	<u>65,629</u>	<u>99,508</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>					
2601	Unavailable Revenue - Property Taxes	-	-	-	-
2600	Total Deferred Inflows of Resources	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>FUND BALANCES</b>					
Restricted Fund Balance:					
3450	Federal or State Funds Grant Restriction	-	-	-	-
3470	Capital Acquisition and Contractual Obligation	-	-	-	-
3480	Retirement of Long-Term Debt	-	-	-	-
3490	Other Restricted Fund Balance	-	-	-	-
3000	Total Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
4000	Total Liabilities, Deferred Inflows & Fund Balances	<u>\$ 7,895</u>	<u>\$ 4,980,073</u>	<u>\$ 65,629</u>	<u>\$ 99,508</u>

# Exhibit 16

EXHIBIT H-1 (Cont'd)

223 TANF Family Assistance	224 IDEA Part B Formula	225 IDEA Part B Preschool	240 National Breakfast and Lunch Program	242 Summer Feeding Program	244 Career and Technical - Basic Grant	255 ESSA Title II A, Supporting Eff. Instr.	263 Title III, A English Lang. Acquisition
\$ -	\$ -	\$ -	\$ 50	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
19,387	2,886,700	41,332	1,558,292	-	209,557	205,940	264,895
-	-	-	-	-	-	-	-
-	-	-	10,210,419	851,654	-	-	-
-	-	-	-	-	-	-	-
-	-	-	50,729	-	-	-	-
-	-	-	-	-	-	-	-
<u>\$ 19,387</u>	<u>\$ 2,886,700</u>	<u>\$ 41,332</u>	<u>\$ 11,819,490</u>	<u>\$ 851,654</u>	<u>\$ 209,557</u>	<u>\$ 205,940</u>	<u>\$ 264,895</u>
\$ -	\$ 20,452	\$ -	\$ 163,451	\$ -	\$ 54,570	\$ 45,787	\$ 121,018
8,165	1,433,350	15,974	724,176	-	-	32,387	20,116
11,222	1,425,879	25,358	-	-	128,573	127,766	120,575
-	7,019	-	121,309	-	26,414	-	3,186
-	-	-	-	-	-	-	-
<u>19,387</u>	<u>2,886,700</u>	<u>41,332</u>	<u>1,008,936</u>	<u>-</u>	<u>209,557</u>	<u>205,940</u>	<u>264,895</u>
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	10,759,825	851,654	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	50,729	-	-	-	-
-	-	-	10,810,554	851,654	-	-	-
<u>\$ 19,387</u>	<u>\$ 2,886,700</u>	<u>\$ 41,332</u>	<u>\$ 11,819,490</u>	<u>\$ 851,654</u>	<u>\$ 209,557</u>	<u>\$ 205,940</u>	<u>\$ 264,895</u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING BALANCE SHEET  
NONMAJOR GOVERNMENTAL FUNDS  
JUNE 30, 2020

Data Control Codes		272 Medicaid Admin. Claim MAC	288 EPISD Roddenberry Planetarium	289 Other Federal Special Revenue Funds	315 SSA IDEA, Part B Discretionary
<b>ASSETS</b>					
1110	Cash and Cash Equivalents	\$ -	\$ -	\$ -	\$ -
1220	Property Taxes - Delinquent	-	-	-	-
1230	Allowance for Uncollectible Taxes	-	-	-	-
1240	Due from Other Governments	58,187	502,021	920,311	29,786
1250	Accrued Interest	-	-	-	-
1260	Due from Other Funds	310,269	-	-	-
1290	Other Receivables	-	-	-	-
1800	Restricted Assets	-	-	-	-
1900	Long Term Investments	-	-	-	-
1000	Total Assets	<u>\$ 368,456</u>	<u>\$ 502,021</u>	<u>\$ 920,311</u>	<u>\$ 29,786</u>
<b>LIABILITIES</b>					
2110	Accounts Payable	\$ -	\$ -	\$ 267,044	\$ -
2160	Accrued Wages Payable	12,651	-	257,362	17,005
2170	Due to Other Funds	-	338,253	345,028	11,767
2200	Accrued Expenditures	-	163,768	50,877	1,014
2300	Unearned Revenue	-	-	-	-
2000	Total Liabilities	<u>12,651</u>	<u>502,021</u>	<u>920,311</u>	<u>29,786</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>					
2601	Unavailable Revenue - Property Taxes	-	-	-	-
2600	Total Deferred Inflows of Resources	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>FUND BALANCES</b>					
Restricted Fund Balance:					
3450	Federal or State Funds Grant Restriction	355,805	-	-	-
3470	Capital Acquisition and Contractual Obligation	-	-	-	-
3480	Retirement of Long-Term Debt	-	-	-	-
3490	Other Restricted Fund Balance	-	-	-	-
3000	Total Fund Balances	<u>355,805</u>	<u>-</u>	<u>-</u>	<u>-</u>
4000	Total Liabilities, Deferred Inflows & Fund Balances	<u>\$ 368,456</u>	<u>\$ 502,021</u>	<u>\$ 920,311</u>	<u>\$ 29,786</u>

# Exhibit 16

EXHIBIT H-1 (Cont'd)

340 SSA - IDEA C Deaf - Early Intervention	381 Adult Basic Education State	397 Advanced Placement Incentives	410 State Instructional Materials	429 Other State Special Revenue Funds	435 SSA Regional Day School - Deaf	446 SSA - RDSPD Tuition Funds	461 Campus Activity Funds
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,062,192
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	15,277	-	-	164,552	157,452	8,195	-
-	-	-	-	-	-	-	-
-	-	79,386	148,192	66,656	-	23,593	-
-	-	-	-	-	-	-	87,274
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
<u>\$ -</u>	<u>\$ 15,277</u>	<u>\$ 79,386</u>	<u>\$ 148,192</u>	<u>\$ 231,208</u>	<u>\$ 157,452</u>	<u>\$ 31,788</u>	<u>\$ 2,149,466</u>
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,121
-	7,767	-	-	41,400	99,075	31,788	-
-	7,510	-	-	-	58,377	-	60,157
-	-	-	2,530	-	-	-	-
-	-	79,386	145,662	189,808	-	-	-
<u>-</u>	<u>15,277</u>	<u>79,386</u>	<u>148,192</u>	<u>231,208</u>	<u>157,452</u>	<u>31,788</u>	<u>61,278</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	2,088,188
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,088,188</u>
<u>\$ -</u>	<u>\$ 15,277</u>	<u>\$ 79,386</u>	<u>\$ 148,192</u>	<u>\$ 231,208</u>	<u>\$ 157,452</u>	<u>\$ 31,788</u>	<u>\$ 2,149,466</u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING BALANCE SHEET  
NONMAJOR GOVERNMENTAL FUNDS  
JUNE 30, 2020

Data Control Codes		499 Other Local Special Revenue Funds	Total Nonmajor Special Revenue Funds	575 2009 QSC - MTN Sinking Fund	577 2017 QSC - MTN Sinking Fund
<b>ASSETS</b>					
1110	Cash and Cash Equivalents	\$ -	\$ 2,062,242	\$ -	\$ -
1220	Property Taxes - Delinquent	-	-	-	-
1230	Allowance for Uncollectible Taxes	-	-	-	-
1240	Due from Other Governments	10,049	12,205,038	-	-
1250	Accrued Interest	-	-	135,549	9,816
1260	Due from Other Funds	412,219	12,102,388	-	-
1290	Other Receivables	-	87,274	-	-
1800	Restricted Assets	-	50,729	-	-
1900	Long Term Investments	-	-	9,241,946	1,280,076
1000	Total Assets	<u>\$ 422,268</u>	<u>\$ 26,507,671</u>	<u>\$ 9,377,495</u>	<u>\$ 1,289,892</u>
<b>LIABILITIES</b>					
2110	Accounts Payable	\$ 1,410	\$ 701,687	\$ -	\$ -
2160	Accrued Wages Payable	1,902	4,779,349	-	-
2170	Due to Other Funds	-	5,586,303	-	-
2200	Accrued Expenditures	30,829	531,148	-	-
2300	Unearned Revenue	388,127	802,983	-	-
2000	Total Liabilities	<u>422,268</u>	<u>12,401,470</u>	<u>-</u>	<u>-</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>					
2601	Unavailable Revenue - Property Taxes	-	-	-	-
2600	Total Deferred Inflows of Resources	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>FUND BALANCES</b>					
Restricted Fund Balance:					
3450	Federal or State Funds Grant Restriction	-	11,967,284	-	-
3470	Capital Acquisition and Contractual Obligation	-	-	-	-
3480	Retirement of Long-Term Debt	-	-	-	-
3490	Other Restricted Fund Balance	-	2,138,917	9,377,495	1,289,892
3000	Total Fund Balances	<u>-</u>	<u>14,106,201</u>	<u>9,377,495</u>	<u>1,289,892</u>
4000	Total Liabilities, Deferred Inflows & Fund Balances	<u>\$ 422,268</u>	<u>\$ 26,507,671</u>	<u>\$ 9,377,495</u>	<u>\$ 1,289,892</u>

# Exhibit 16

EXHIBIT H-1

599 Debt Service Fund	Total Nonmajor Debt Service Funds	688 2008 Capital Projects	690 PFC Capital Projects	Total Nonmajor Capital Project Funds	Total Nonmajor Governmental Funds
\$ 33,375,132	\$ 33,375,132	\$ 12,475,095	\$ 4,682,625	\$ 17,157,720	\$ 52,595,094
2,308,988	2,308,988	-	-	-	2,308,988
(1,198,000)	(1,198,000)	-	-	-	(1,198,000)
-	-	-	-	-	12,205,038
-	145,365	-	-	-	145,365
-	-	7,380	-	7,380	12,109,768
30,656	30,656	-	-	-	117,930
-	-	-	-	-	50,729
-	10,522,022	-	-	-	10,522,022
<u>\$ 34,516,776</u>	<u>\$ 45,184,163</u>	<u>\$ 12,482,475</u>	<u>\$ 4,682,625</u>	<u>\$ 17,165,100</u>	<u>\$ 88,856,934</u>
\$ -	\$ -	\$ 1,470,613	\$ -	\$ 1,470,613	\$ 2,172,300
-	-	-	-	-	4,779,349
-	-	-	-	-	5,586,303
-	-	2,566,420	887,999	3,454,419	3,985,567
1,085,638	1,085,638	-	-	-	1,888,621
<u>1,085,638</u>	<u>1,085,638</u>	<u>4,037,033</u>	<u>887,999</u>	<u>4,925,032</u>	<u>18,412,140</u>
863,981	863,981	-	-	-	863,981
<u>863,981</u>	<u>863,981</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>863,981</u>
-	-	-	-	-	11,967,284
-	-	8,445,442	3,794,626	12,240,068	12,240,068
32,567,157	32,567,157	-	-	-	32,567,157
-	10,667,387	-	-	-	12,806,304
<u>32,567,157</u>	<u>43,234,544</u>	<u>8,445,442</u>	<u>3,794,626</u>	<u>12,240,068</u>	<u>69,580,813</u>
<u>\$ 34,516,776</u>	<u>\$ 45,184,163</u>	<u>\$ 12,482,475</u>	<u>\$ 4,682,625</u>	<u>\$ 17,165,100</u>	<u>\$ 88,856,934</u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN  
FUND BALANCES - NONMAJOR GOVERNMENTAL FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	206 TX Ed. for Homeless Children	211 ESSA Title I Part A, D, and SIP	212 ESSA Title I Part C Migrant	220 Adult Education Federal
REVENUES:				
5700 Total Local and Intermediate Sources	\$ -	\$ -	\$ -	\$ -
5800 State Program Revenues	-	-	-	-
5900 Federal Program Revenues	102,360	23,992,850	320,800	671,274
5020 Total Revenues	102,360	23,992,850	320,800	671,274
EXPENDITURES:				
Current:				
0011 Instruction	-	13,295,630	133,531	319,590
0012 Instructional Resources and Media Services	-	234,188	-	-
0013 Curriculum and Instructional Staff Development	-	5,513,044	1,305	109,880
0021 Instructional Leadership	-	1,345,877	183,346	138,104
0023 School Leadership	-	841,559	-	-
0031 Guidance, Counseling, and Evaluation Services	-	469,273	-	50,497
0032 Social Work Services	102,360	11,886	-	52,146
0033 Health Services	-	23,572	-	-
0034 Student (Pupil) Transportation	-	549,350	-	-
0035 Food Services	-	-	-	-
0036 Extracurricular Activities	-	-	-	-
0051 Facilities Maintenance and Operations	-	-	-	1,057
0052 Security and Monitoring Services	-	7,114	-	-
0053 Data Processing Services	-	249,000	-	-
0061 Community Services	-	1,452,335	2,618	-
Debt Service:				
0071 Principal on Long-Term Debt	-	-	-	-
0072 Interest on Long-Term Debt	-	-	-	-
0073 Bond Issuance Cost and Fees	-	-	-	-
Capital Outlay:				
0081 Facilities Acquisition and Construction	-	22	-	-
6030 Total Expenditures	102,360	23,992,850	320,800	671,274
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	-	-	-	-
OTHER FINANCING SOURCES (USES):				
7911 Capital Related Debt Issued	-	-	-	-
7915 Transfers In	-	-	-	-
7916 Premium or Discount on Issuance of Bonds	-	-	-	-
8949 Other (Uses)	-	-	-	-
7080 Total Other Financing Sources (Uses)	-	-	-	-
1200 Net Change in Fund Balance	-	-	-	-
0100 Fund Balance - July 1 (Beginning)	-	-	-	-
3000 Fund Balance - June 30 (Ending)	\$ -	\$ -	\$ -	\$ -



# Exhibit 16

EXHIBIT H-2 (Cont'd)

223 TANF Family Assistance	224 IDEA Part B Formula	225 IDEA Part B Preschool	240 National Breakfast and Lunch Program	242 Summer Feeding Program	244 Career and Technical - Basic Grant	255 ESSA Title II A, Supporting Eff. Instr.	263 Title III, A English Lang. Acquisition
\$ -	\$ -	\$ -	\$ 2,575,717	\$ -	\$ -	\$ -	\$ -
-	-	-	146,728	-	-	-	-
111,394	10,414,094	176,303	28,514,425	24,492	816,491	1,789,021	992,475
111,394	10,414,094	176,303	31,236,870	24,492	816,491	1,789,021	992,475
50,968	2,913,850	33,565	-	-	798,481	145,120	403,404
-	37,481	-	-	-	-	-	-
21,527	661,930	123,562	-	-	18,010	1,558,032	580,954
25,241	35,426	-	-	-	-	13,669	-
-	198,869	-	-	-	-	72,200	339
6,726	6,536,166	17,951	-	-	-	-	7,778
6,932	19,765	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	28,586,943	24,845	-	-	-
-	4,597	-	-	-	-	-	-
-	-	-	1,439,607	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	6,010	1,225	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
111,394	10,414,094	176,303	30,026,550	24,845	816,491	1,789,021	992,475
-	-	-	1,210,320	(353)	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	1,210,320	(353)	-	-	-
-	-	-	9,600,234	852,007	-	-	-
\$ -	\$ -	\$ -	\$ 10,810,554	\$ 851,654	\$ -	\$ -	\$ -

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN  
FUND BALANCES - NONMAJOR GOVERNMENTAL FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	272 Medicaid Admin. Claim MAC	288 EPISD Roddenberry Planetarium	289 Other Federal Special Revenue Funds	315 SSA IDEA, Part B Discretionary
REVENUES:				
5700 Total Local and Intermediate Sources	\$ -	\$ -	\$ -	\$ -
5800 State Program Revenues	-	-	-	-
5900 Federal Program Revenues	139,816	667,989	2,285,116	149,697
5020 Total Revenues	139,816	667,989	2,285,116	149,697
EXPENDITURES:				
Current:				
0011 Instruction	-	-	1,194,356	147,620
0012 Instructional Resources and Media Services	-	-	-	-
0013 Curriculum and Instructional Staff Development	-	-	547,609	1,000
0021 Instructional Leadership	-	-	-	-
0023 School Leadership	-	-	4,028	-
0031 Guidance, Counseling, and Evaluation Services	-	-	243,771	12
0032 Social Work Services	-	-	94,675	-
0033 Health Services	189,528	-	58	-
0034 Student (Pupil) Transportation	-	-	-	-
0035 Food Services	-	-	-	-
0036 Extracurricular Activities	-	-	600	-
0051 Facilities Maintenance and Operations	-	-	-	-
0052 Security and Monitoring Services	-	-	66,262	-
0053 Data Processing Services	-	-	132,145	-
0061 Community Services	-	-	1,612	1,065
Debt Service:				
0071 Principal on Long-Term Debt	-	-	-	-
0072 Interest on Long-Term Debt	-	-	-	-
0073 Bond Issuance Cost and Fees	-	-	-	-
Capital Outlay:				
0081 Facilities Acquisition and Construction	-	667,989	-	-
6030 Total Expenditures	189,528	667,989	2,285,116	149,697
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	(49,712)	-	-	-
OTHER FINANCING SOURCES (USES):				
7911 Capital Related Debt Issued	-	-	-	-
7915 Transfers In	-	-	-	-
7916 Premium or Discount on Issuance of Bonds	-	-	-	-
8949 Other (Uses)	-	-	-	-
7080 Total Other Financing Sources (Uses)	-	-	-	-
1200 Net Change in Fund Balance	(49,712)	-	-	-
0100 Fund Balance - July 1 (Beginning)	405,517	-	-	-
3000 Fund Balance - June 30 (Ending)	\$ 355,805	\$ -	\$ -	\$ -

# Exhibit 16

EXHIBIT H-2 (Cont'd)

340 SSA - IDEA C Deaf - Early Intervention	381 Adult Basic Education State	397 Advanced Placement Incentives	410 State Instructional Materials	429 Other State Special Revenue Funds	435 SSA Regional Day School - Deaf	446 SSA - RDSPD Tuition Funds	461 Campus Activity Funds
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	264,137	679,152
-	113,000	-	5,934,400	603,294	666,916	-	-
182	-	-	-	-	-	-	-
182	113,000	-	5,934,400	603,294	666,916	264,137	679,152
182	38,618	-	5,934,400	30,859	666,894	261,030	-
-	-	-	-	-	-	-	-
-	22,897	-	-	103,101	-	85	-
-	29,364	-	-	-	22	1,742	-
-	-	-	-	-	-	-	-
-	10,890	-	-	-	-	823	-
-	11,231	-	-	469,334	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	499,421
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	457	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
182	113,000	-	5,934,400	603,294	666,916	264,137	499,421
-	-	-	-	-	-	-	179,731
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	179,731
-	-	-	-	-	-	-	1,908,457
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2,088,188

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN  
FUND BALANCES - NONMAJOR GOVERNMENTAL FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	499 Other Local Special Revenue Funds	Total Nonmajor Special Revenue Funds	575 2009 QSC - MTN Sinking Fund	577 2017 QSC - MTN Sinking Fund
REVENUES:				
5700 Total Local and Intermediate Sources	\$ 258,858	\$ 3,777,864	\$ 346,275	\$ 24,251
5800 State Program Revenues	-	7,464,338	-	-
5900 Federal Program Revenues	-	71,168,779	-	-
5020 Total Revenues	258,858	82,410,981	346,275	24,251
EXPENDITURES:				
Current:				
0011 Instruction	100,047	26,468,145	-	-
0012 Instructional Resources and Media Services	-	271,669	-	-
0013 Curriculum and Instructional Staff Development	157,089	9,420,025	-	-
0021 Instructional Leadership	-	1,772,791	-	-
0023 School Leadership	-	1,116,995	-	-
0031 Guidance, Counseling, and Evaluation Services	-	7,343,887	-	-
0032 Social Work Services	-	768,329	-	-
0033 Health Services	-	213,158	-	-
0034 Student (Pupil) Transportation	-	549,350	-	-
0035 Food Services	-	28,611,788	-	-
0036 Extracurricular Activities	-	504,618	-	-
0051 Facilities Maintenance and Operations	-	1,440,664	-	-
0052 Security and Monitoring Services	-	73,376	-	-
0053 Data Processing Services	-	381,145	-	-
0061 Community Services	1,722	1,467,044	-	-
Debt Service:				
0071 Principal on Long-Term Debt	-	-	-	-
0072 Interest on Long-Term Debt	-	-	-	-
0073 Bond Issuance Cost and Fees	-	-	-	-
Capital Outlay:				
0081 Facilities Acquisition and Construction	-	668,011	-	-
6030 Total Expenditures	258,858	81,070,995	-	-
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	-	1,339,986	346,275	24,251
OTHER FINANCING SOURCES (USES):				
7911 Capital Related Debt Issued	-	-	-	-
7915 Transfers In	-	-	684,059	627,208
7916 Premium or Discount on Issuance of Bonds	-	-	-	-
8949 Other (Uses)	-	-	-	-
7080 Total Other Financing Sources (Uses)	-	-	684,059	627,208
1200 Net Change in Fund Balance	-	1,339,986	1,030,334	651,459
0100 Fund Balance - July 1 (Beginning)	-	12,766,215	8,347,161	638,433
3000 Fund Balance - June 30 (Ending)	\$ -	\$ 14,106,201	\$ 9,377,495	\$ 1,289,892

# Exhibit 16

EXHIBIT H-2

599 Debt Service Fund	Total Nonmajor Debt Service Funds	688 2008 Capital Projects	690 PFC Capital Projects	Total Nonmajor Capital Project Funds	Total Nonmajor Governmental Funds
\$ 33,695,217	\$ 34,065,743	\$ 433,495	\$ 162,207	\$ 595,702	\$ 38,439,309
3,649,604	3,649,604	-	-	-	11,113,942
-	-	-	-	-	71,168,779
37,344,821	37,715,347	433,495	162,207	595,702	120,722,030
-	-	-	-	-	26,468,145
-	-	-	-	-	271,669
-	-	-	-	-	9,420,025
-	-	-	-	-	1,772,791
-	-	-	-	-	1,116,995
-	-	-	-	-	7,343,887
-	-	-	-	-	768,329
-	-	-	-	-	213,158
-	-	-	-	-	549,350
-	-	-	-	-	28,611,788
-	-	-	-	-	504,618
-	-	-	-	-	1,440,664
-	-	599	-	599	73,975
-	-	-	-	-	381,145
-	-	-	-	-	1,467,044
10,728,593	10,728,593	-	-	-	10,728,593
31,342,274	31,342,274	-	-	-	31,342,274
587,853	587,853	-	-	-	587,853
-	-	24,098,500	8,695,483	32,793,983	33,461,994
42,658,720	42,658,720	24,099,099	8,695,483	32,794,582	156,524,297
(5,313,899)	(4,943,373)	(23,665,604)	(8,533,276)	(32,198,880)	(35,802,267)
37,850,000	37,850,000	-	-	-	37,850,000
15,500,000	16,811,267	-	-	-	16,811,267
10,549,091	10,549,091	-	-	-	10,549,091
(44,183,386)	(44,183,386)	-	-	-	(44,183,386)
19,715,705	21,026,972	-	-	-	21,026,972
14,401,806	16,083,599	(23,665,604)	(8,533,276)	(32,198,880)	(14,775,295)
18,165,351	27,150,945	32,111,046	12,327,902	44,438,948	84,356,108
\$ 32,567,157	\$ 43,234,544	\$ 8,445,442	\$ 3,794,626	\$ 12,240,068	\$ 69,580,813

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**INTERNAL SERVICE FUNDS**

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The Internal Service Funds are used to account for goods or services provided by one department to other departments of the District on a cost reimbursement basis.

Print Shop (Fund 752) - This fund accounts for transactions related to print shop services provided to other departments of the District.

Workers' Compensation Insurance Fund (Fund 753) - This fund accounts for all financial activity associated with the District's self-insured workers' compensation plan.

Health Insurance Fund (Fund 772) - This fund accounts for all financial activity associated with the employee's health insurance plan, which is supported principally by employer and employee contributions and payments are made to a third-party vendor. Services are available to all full-time and part-time employees.

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING STATEMENT OF NET POSITION  
INTERNAL SERVICE FUNDS  
JUNE 30, 2020

	752	753	772	
	Print	Workers'	Health	Total
	Shop	Compensation	Insurance	Internal
		Insurance		Service Funds
<b>ASSETS</b>				
Current Assets:				
Cash and Cash Equivalents	\$ -	\$ 8,073,386	\$ 1,038	\$ 8,074,424
Due from Other Funds	432,110	37,532	-	469,642
Total Current Assets	<u>432,110</u>	<u>8,110,918</u>	<u>1,038</u>	<u>8,544,066</u>
Noncurrent Assets:				
Capital Assets:				
Furniture and Equipment	225,131	-	-	225,131
Depreciation on Furniture and Equipment	(212,333)	-	-	(212,333)
Total Noncurrent Assets	<u>12,798</u>	<u>-</u>	<u>-</u>	<u>12,798</u>
Total Assets	<u>444,908</u>	<u>8,110,918</u>	<u>1,038</u>	<u>8,556,864</u>
<b>LIABILITIES</b>				
Current Liabilities:				
Accounts Payable	472	1,919	975,951	978,342
Accrued Wages Payable	1,107	-	-	1,107
Due to Other Funds	-	-	932,117	932,117
Accrued Expenses	17	6,505,735	2,403,375	8,909,127
Total Liabilities	<u>1,596</u>	<u>6,507,654</u>	<u>4,311,443</u>	<u>10,820,693</u>
<b>NET POSITION</b>				
Net Investment in Capital Assets	12,798	-	-	12,798
Unrestricted Net Position	430,514	1,603,264	(4,310,405)	(2,276,627)
Total Net Position	<u>\$ 443,312</u>	<u>\$ 1,603,264</u>	<u>\$ (4,310,405)</u>	<u>\$ (2,263,829)</u>



EL PASO INDEPENDENT SCHOOL DISTRICT  
 COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION  
 INTERNAL SERVICE FUNDS  
 FOR THE YEAR ENDED JUNE 30, 2020

	752	753	772	Total
	Print Shop	Workers' Compensation Insurance	Health Insurance	Internal Service Funds
<b>OPERATING REVENUES:</b>				
Local and Intermediate Sources	\$ 639,702	\$ 3,470,042	\$ 27,077,829	\$ 31,187,573
Total Operating Revenues	639,702	3,470,042	27,077,829	31,187,573
<b>OPERATING EXPENSES:</b>				
Payroll Costs	567,733	2,276,194	29,851,064	32,694,991
Professional and Contracted Services	110,623	-	2,923,023	3,033,646
Supplies and Materials	95,074	7,808	11,216	114,098
Other Operating Costs	598	109,653	13,257	123,508
Depreciation Expense	6,270	-	-	6,270
Total Operating Expenses	780,298	2,393,655	32,798,560	35,972,513
Operating Income (Loss)	(140,596)	1,076,387	(5,720,731)	(4,784,940)
<b>NONOPERATING REVENUES (EXPENSES):</b>				
Earnings from Temporary Deposits & Investments	-	153,951	25,273	179,224
Total Nonoperating Revenues (Expenses)	-	153,951	25,273	179,224
Income (Loss) Before Transfers	(140,596)	1,230,338	(5,695,458)	(4,605,716)
Transfer In	-	-	1,000,000	1,000,000
Transfers Out	-	(1,000,000)	-	(1,000,000)
Change in Net Position	(140,596)	230,338	(4,695,458)	(4,605,716)
Total Net Position - July 1 (Beginning)	583,908	1,372,926	385,053	2,341,887
Total Net Position June 30 (Ending)	\$ 443,312	\$ 1,603,264	\$ (4,310,405)	\$ (2,263,829)

EL PASO INDEPENDENT SCHOOL DISTRICT  
COMBINING STATEMENT OF CASH FLOWS  
INTERNAL SERVICE FUNDS  
FOR THE YEAR ENDED JUNE 30, 2020

	752	753	772	
	Print	Workers'	Health	Total
	Shop	Insurance	Insurance	Internal
				Service Funds
<u>Cash Flows from Operating Activities:</u>				
Cash Received from User Charges	\$ 56,085	\$ -	\$ -	\$ 56,085
Cash Received from Assessments - Other Funds	717,525	3,470,042	27,077,829	31,265,396
Cash Payments to Employees for Services	(567,781)	(1,367,692)	(221,935)	(2,157,408)
Cash Payments for Insurance Claims	-	(1,901,671)	(26,250,011)	(28,151,682)
Cash Payments for Suppliers	(205,231)	(297,736)	(2,062,661)	(2,565,628)
Cash Payments for Other Operating Expenses	(598)	(109,653)	(13,257)	(123,508)
Net Cash Used For Operating Activities	-	(206,710)	(1,470,035)	(1,676,745)
<u>Cash Flows from Non-Capital Financing Activities:</u>				
Operating Transfer (Out)	-	(1,000,000)	-	(1,000,000)
Operating Transfer In	-	-	1,000,000	1,000,000
Net Cash Provided by (Used for) Non-Capital Financing Activities	-	(1,000,000)	1,000,000	-
<u>Cash Flows from Investing Activities:</u>				
Interest and Dividends on Investments	-	153,951	25,273	179,224
Net Decrease in Cash and Cash Equivalents	-	(1,052,759)	(444,762)	(1,497,521)
Cash and Cash Equivalents at Beginning of Year	-	9,126,145	445,800	9,571,945
Cash and Cash Equivalents at End of Year	\$ -	\$ 8,073,386	\$ 1,038	\$ 8,074,424
<u>Reconciliation of Operating Income (Loss) to Net Cash Used for Operating Activities:</u>				
Operating Income (Loss):	\$ (140,596)	\$ 1,076,387	\$ (5,720,731)	\$ (4,784,940)
Adjustments to Reconcile Operating Income to Net Cash Used for Operating Activities:				
Depreciation	6,270	-	-	6,270
Effect of Increases and Decreases in Current Assets and Liabilities:				
Decrease (increase) in Due from Other Funds	133,908	(37,532)	-	96,376
Decrease (increase) in Receivables	-	1,160	-	1,160
Increase (decrease) in Accounts Payable	472	(152,212)	917,534	765,794
Increase (decrease) in Accrued Wages Payable	(48)	(64)	-	(112)
Increase (decrease) in Due to Other Funds	-	(100,184)	929,787	829,603
Increase (decrease) in Accrued Expenses	(6)	(994,265)	2,403,375	1,409,104
Net Cash Used for Operating Activities	\$ -	\$ (206,710)	\$ (1,470,035)	\$ (1,676,745)

**AGENCY FUND**

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Agency Fund (Fund 865) - the District accounts for resources held for others in a custodial capacity in an agency fund. The District's Agency fund is used to account for activities of student groups.

EL PASO INDEPENDENT SCHOOL DISTRICT  
 COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES  
 ALL AGENCY FUNDS  
 JUNE 30, 2020

	BALANCE JULY 1 2019			BALANCE JUNE 30 2020	
		ADDITIONS	DEDUCTIONS		
<b>STUDENT ACTIVITY AGENCY FUND</b>					
Assets:					
Cash and Temporary Investments	\$ 2,389,292	\$ 500,503	\$ 155,243	\$ 2,734,552	
Other Receivables	59,116	175,050	190,276	43,890	
Total Assets	<u>\$ 2,448,408</u>	<u>\$ 675,553</u>	<u>\$ 345,519</u>	<u>\$ 2,778,442</u>	
Liabilities:					
Accounts Payable	\$ 59,116	\$ 257,398	\$ 272,624	\$ 43,890	
Due to Student Groups	2,389,292	500,503	155,243	2,734,552	
Total Liabilities	<u>\$ 2,448,408</u>	<u>\$ 757,901</u>	<u>\$ 427,867</u>	<u>\$ 2,778,442</u>	

**PRIVATE PURPOSE TRUST FUNDS**

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Private Purpose Trust Funds - The District accounts for donations for which the donor has stipulated that both the principal and the income may be used for purposes that benefit parties outside the District. The District has two private purpose trust funds to account for scholarships and other restricted donations.

Scholarship Trust Fund (Fund 810) - accounts for all financial activity and donations related to scholarships to high school students, as stipulated by the donor.

Aoy Elementary School Fager Trust Fund (Fund 829) - accounts for all financial activity related to a restricted donation for various needs of the students at Aoy Elementary School.

EL PASO INDEPENDENT SCHOOL DISTRICT  
 COMBINING STATEMENT OF FIDUCIARY NET POSITION  
 PRIVATE PURPOSE TRUST FUNDS  
 JUNE 30, 2020

	810	829	Total
	Scholarship	Aoy ES Fager	Private
	Trust Fund	Trust Fund	Purpose
			Trust Funds
ASSETS			
Restricted Assets	\$ 206,595	\$ 215,110	\$ 421,705
Total Assets	<u>206,595</u>	<u>215,110</u>	<u>421,705</u>
NET POSITION			
Restricted for Other Purposes	<u>206,595</u>	<u>215,110</u>	<u>421,705</u>
Total Net Position	<u>\$ 206,595</u>	<u>\$ 215,110</u>	<u>\$ 421,705</u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
 COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
 PRIVATE PURPOSE TRUST FUNDS  
 FOR THE YEAR ENDED JUNE 30, 2020

	810	829	Total
	Scholarship	Aoy ES Fager	Private
	Trust Fund	Trust Fund	Purpose
			Trust Funds
<b>ADDITIONS:</b>			
Earnings from Temporary Deposits	\$ 2,873	\$ 3,496	\$ 6,369
Contributions, Gifts and Donations	-	23,550	23,550
Miscellaneous Additions	1,500	-	1,500
Total Additions	<u>4,373</u>	<u>27,046</u>	<u>31,419</u>
<b>DEDUCTIONS:</b>			
Supplies and Materials	-	57,501	57,501
Other Deductions	8,558	-	8,558
Total Deductions	<u>8,558</u>	<u>57,501</u>	<u>66,059</u>
Change in Net Position	(4,185)	(30,455)	(34,640)
Total Net Position - July 1 (Beginning)	<u>210,780</u>	<u>245,565</u>	<u>456,345</u>
Total Net Position - June 30 (Ending)	<u><u>\$ 206,595</u></u>	<u><u>\$ 215,110</u></u>	<u><u>\$ 421,705</u></u>

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**TEXAS EDUCATION AGENCY  
REQUIRED SCHEDULES  
(UNAUDITED)**

EL PASO INDEPENDENT SCHOOL DISTRICT  
 SCHEDULE OF DELINQUENT TAXES RECEIVABLE  
 FISCAL YEAR ENDED JUNE 30, 2020

Last 10 Years	(1)	(2)	(3)
	Tax Rates		Assessed/Appraised Value for School Tax Purposes
	Maintenance	Debt Service	
2011 and prior years	Various	Various	\$ 14,540,539,823
2012	1.040000	0.195000	15,002,911,955
2013	1.040000	0.195000	15,392,960,892
2014	1.040000	0.195000	15,708,746,343
2015	1.040000	0.195000	15,783,486,372
2016	1.070000	0.165000	15,670,771,018
2017	1.070000	0.165000	15,839,247,975
2018	1.070000	0.240000	15,814,914,308
2019	1.170000	0.140000	16,303,119,360
2020 (School year under audit)	1.068350	0.200000	16,780,751,661
1000 TOTALS			

# Exhibit 16

EXHIBIT J-1

(10) Beginning Balance 7/1/2019	(20) Current Year's Total Levy	(31) Maintenance Collections	(32) Debt Service Collections	(40) Entire Year's Adjustments	(50) Ending Balance 6/30/2020
\$ 3,657,620	\$ -	\$ 66,115	\$ 10,661	\$ (170,734)	\$ 3,410,110
651,702	-	23,694	4,443	(52)	623,513
687,925	-	34,075	6,389	(52)	647,409
718,649	-	47,057	8,824	(52)	662,716
788,390	-	56,017	10,504	(21,225)	700,644
945,536	-	85,908	13,247	(27,299)	819,082
1,155,381	-	137,534	21,208	(34,327)	962,312
1,767,646	-	110,100	24,695	(322,217)	1,310,634
4,732,765	-	1,651,982	197,673	(956,496)	1,926,614
-	212,838,664	174,969,285	32,755,048	-	5,114,331
<u>\$ 15,105,614</u>	<u>\$ 212,838,664</u>	<u>\$ 177,181,767</u>	<u>\$ 33,052,692</u>	<u>\$ (1,532,454)</u>	<u>\$ 16,177,365</u>

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE  
BUDGET AND ACTUAL - CHILD NUTRITION PROGRAM  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	Budgeted Amounts		Actual Amounts (GAAP BASIS)	Variance With Final Budget Positive or (Negative)
	Original	Final		
REVENUES:				
5700 Total Local and Intermediate Sources	\$ 2,201,571	\$ 2,201,571	\$ 2,575,717	\$ 374,146
5800 State Program Revenues	175,000	175,000	146,728	(28,272)
5900 Federal Program Revenues	30,513,727	30,708,283	28,514,425	(2,193,858)
5020 Total Revenues	32,890,298	33,084,854	31,236,870	(1,847,984)
EXPENDITURES:				
Current:				
0035 Food Services	30,692,512	30,867,582	28,586,943	2,280,639
0051 Facilities Maintenance and Operations	1,515,514	1,503,008	1,439,607	63,401
6030 Total Expenditures	32,208,026	32,370,590	30,026,550	2,344,040
1200 Net Change in Fund Balances	682,272	714,264	1,210,320	496,056
0100 Fund Balance - July 1 (Beginning)	9,600,234	9,600,234	9,600,234	-
3000 Fund Balance - June 30 (Ending)	\$ 10,282,506	\$ 10,314,498	\$ 10,810,554	\$ 496,056

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE  
BUDGET AND ACTUAL - DEBT SERVICE FUND  
FOR THE YEAR ENDED JUNE 30, 2020

Data Control Codes	Budgeted Amounts		Actual Amounts (GAAP BASIS)	Variance With Final Budget Positive or (Negative)
	Original	Final		
REVENUES:				
5700 Total Local and Intermediate Sources	\$ 32,178,580	\$ 33,082,437	\$ 34,065,743	\$ 983,306
5800 State Program Revenues	3,146,956	2,243,099	3,649,604	1,406,505
5020 Total Revenues	35,325,536	35,325,536	37,715,347	2,389,811
EXPENDITURES:				
Debt Service:				
0071 Principal on Long-Term Debt	13,136,571	10,736,571	10,728,593	7,978
0072 Interest on Long-Term Debt	37,340,735	31,540,735	31,342,274	198,461
0073 Bond Issuance Cost and Fees	300,000	730,868	587,853	143,015
6030 Total Expenditures	50,777,306	43,008,174	42,658,720	349,454
1100 Excess (Deficiency) of Revenues Over (Under) Expenditures	(15,451,770)	(7,682,638)	(4,943,373)	2,739,265
OTHER FINANCING SOURCES (USES):				
7911 Capital Related Debt Issued	-	37,850,000	37,850,000	-
7915 Transfers In	16,811,267	16,811,267	16,811,267	-
7916 Premium or Discount on Issuance of Bonds	-	6,716,024	10,549,091	3,833,067
8949 Other (Uses)	(48,230)	(44,183,386)	(44,183,386)	-
7080 Total Other Financing Sources (Uses)	16,763,037	17,193,905	21,026,972	3,833,067
1200 Net Change in Fund Balances	1,311,267	9,511,267	16,083,599	6,572,332
0100 Fund Balance - July 1 (Beginning)	27,150,945	27,150,945	27,150,945	-
3000 Fund Balance - June 30 (Ending)	\$ 28,462,212	\$ 36,662,212	\$ 43,234,544	\$ 6,572,332

This section presents detailed information as a context for understanding what the information in the financial statements, note disclosures, required supplementary information, and supplementary information says about the El Paso Independent School District's overall financial health.

<b>Contents</b>	<b>Page</b>
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**Financial Trends Information** - These schedules contain trend information intended to help the reader understand how the District's financial position has changed over time.

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**Demographic and Economic Information** - These schedules provide demographic and economic indicators intended to help the reader understand the socioeconomic environment within which the District's financial activities take place.

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**Operating Information** - These schedules provide contextual information about the District's operations and resources intended to assist readers in using financial statement information to understand and assess the District's economic condition.

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El Paso Independent School District  
Net Position by Component  
Last Ten Fiscal Years  
(Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-1

	Fiscal Year				
	2011	2012	2013	2014	2015
Governmental activities					
Net Investment in Capital Assets	\$ 139,614,011	\$ 156,530,278	\$ 173,351,662	\$ 188,730,456	\$ 204,394,860
Restricted	49,086,619	51,967,082	52,162,927	48,628,723	36,972,304
Unrestricted	69,723,920	88,071,032	91,668,285	92,583,627	33,791,824
Total Primary Government Net Position	<u>\$ 258,424,550</u>	<u>\$ 296,568,392</u>	<u>\$ 317,182,874</u>	<u>\$ 329,942,806</u>	<u>\$ 275,158,988</u>

	Fiscal Year				
	2016	2017	2018	2019	2020
Governmental activities					
Net Investment in Capital Assets	\$ 214,574,394	\$ 222,693,712	\$ 226,698,179	\$ 234,309,458	\$ 226,302,538
Restricted	37,543,118	37,613,626	40,592,232	28,941,600	44,853,880
Unrestricted	36,514,119	19,205,300	(293,889,406)	(287,211,126)	(291,553,437)
Total Primary Government Net Position	<u>\$ 288,631,631</u>	<u>\$ 279,512,638</u>	<u>\$ (26,598,995)</u>	<u>\$ (23,960,068)</u>	<u>\$ (20,397,019)</u>

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit A-1

El Paso Independent School District  
Expenses, Program Revenues, and Net (Expense) Revenue  
Last Ten Fiscal Years  
(Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-2

	Fiscal Year			
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<b>Expenses</b>				
Governmental activities				
Instruction	\$ 322,370,486	\$ 330,135,948	\$ 318,017,026	\$ 339,970,098
Instructional Resources and Media Services	9,527,177	9,464,951	9,726,528	10,190,539
Curriculum and Staff Development	22,716,150	19,821,343	20,548,662	19,141,051
Instructional Leadership	5,006,706	5,726,289	5,209,084	4,666,022
School Leadership	32,648,554	33,283,820	35,173,635	37,604,011
Guidance, Counseling and Evaluation Services	22,069,810	21,309,082	22,165,686	22,547,573
Social Work Services	3,891,285	3,989,428	4,126,615	4,400,642
Health Services	6,549,469	6,704,553	7,050,410	7,119,296
Student (Pupil) Transportation	11,611,281	12,035,619	12,524,366	12,914,355
Food Services	23,204,683	26,355,409	28,070,408	29,934,960
Extracurricular Activities	10,952,551	10,882,272	11,000,983	11,354,886
General Administration	8,902,078	9,403,194	11,045,069	10,518,734
Facilities Maintenance and Operations	43,333,438	51,818,255	51,212,315	51,250,395
Security and Monitoring Services	4,891,223	5,149,973	5,214,481	5,351,433
Data Processing Services	3,433,118	3,953,098	4,813,781	5,026,288
Community Services	1,391,820	1,312,251	1,308,670	1,406,980
Debt Service - Interest on Long Term Debt	19,146,296	20,592,143	19,490,064	16,111,164
Debt Service - Bond Issuance Cost and Fees	633,790	1,951,108	1,409,031	240,952
Capital Outlay	231,494	270,643	278,432	724,549
Payments related to Shared Services Arrangements	207,647	150,585	108,226	-
Other Intergovernmental Charges	2,245,504	2,446,855	2,289,030	2,409,511
Total Primary Government Expenses	<u>554,964,560</u>	<u>576,756,819</u>	<u>570,782,502</u>	<u>592,883,439</u>
<b>Program Revenues</b>				
Charges for services				
Instruction	910,971	1,617,524	869,756	1,258,640
Instructional Resources and Media Services	-	32,991	10,180	21,926
Curriculum and Staff Development	-	164,956	10,180	10,963
Instructional Leadership	-	-	10,180	10,963
School Leadership	-	21,994	40,718	87,703
Guidance, Counseling and Evaluation Services	-	10,997	-	21,926
Social Work Services	-	-	-	10,963
Health Services	-	-	10,180	10,963
Student (Pupil) Transportation	343,103	325,717	193,479	316,388
Food Services	4,622,144	5,077,101	4,892,654	4,647,237
Extracurricular Activities	1,146,240	1,418,537	1,451,636	1,410,550
General Administration	-	43,988	478,436	32,889
Facilities Maintenance and Operations	568,178	132,900	203,754	352,001
Security and Monitoring Services	-	-	10,180	10,963
Data Processing Services	-	-	10,180	10,963
Community Services	-	65,982	-	10,963
Facilities, Planning & Innovative Construction	-	-	-	21,926
Operating Grants and Contributions	161,908,511	159,656,298	131,114,059	134,962,443
Capital Grants and Contributions	-	-	1,739,678	5,444,818
Total Primary Government Program Revenues	<u>169,499,147</u>	<u>168,568,985</u>	<u>141,045,250</u>	<u>148,655,188</u>
Total Primary Government Net Expense	<u>\$ (385,465,413)</u>	<u>\$ (408,187,834)</u>	<u>\$ (429,737,252)</u>	<u>\$ (444,228,251)</u>

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit B-1



El Paso Independent School District  
Expenses, Program Revenues, and Net (Expense) Revenue  
Last Ten Fiscal Years  
(Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-2

<b>Fiscal Year</b>					
<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>
\$ 342,470,623	\$ 367,253,806	\$ 348,289,505	\$ 232,862,822	\$ 363,825,518	\$ 388,245,164
11,273,339	11,508,272	11,246,599	7,440,947	9,407,670	9,319,675
18,654,734	27,621,093	28,644,232	20,907,785	27,111,134	29,732,085
4,396,206	5,806,579	5,902,023	4,434,210	6,368,683	7,277,689
38,471,312	41,552,398	41,235,138	27,939,400	42,144,047	44,807,286
22,380,233	25,763,211	27,467,581	15,598,378	28,419,123	29,929,444
4,182,973	4,560,677	4,375,007	3,877,159	5,042,085	5,380,943
7,076,101	7,519,152	7,288,278	4,731,374	7,511,503	8,088,656
13,086,695	14,378,675	14,316,954	10,938,844	13,310,497	13,735,500
34,571,954	36,538,545	33,665,104	23,304,636	31,481,341	31,384,843
11,989,018	12,323,388	12,999,491	10,986,825	14,906,284	14,230,020
10,801,379	11,305,588	12,693,037	10,045,859	15,408,109	16,551,220
49,610,698	54,547,930	55,262,112	48,616,708	55,576,990	56,652,493
5,720,221	6,459,008	6,729,765	5,109,619	7,545,864	7,656,982
5,250,456	6,041,075	5,225,911	3,886,949	7,697,596	9,208,439
1,462,588	1,520,291	1,585,832	1,089,462	1,589,284	1,713,658
15,832,910	13,785,646	13,386,878	23,247,110	22,910,046	30,395,327
1,872,908	181,484	1,659,010	902,883	2,738,166	2,515,677
462,639	593,045	573,493	582,352	1,167,761	369,850
-	-	-	-	-	-
2,348,227	2,416,260	2,589,237	2,558,238	2,540,161	2,388,693
<u>601,915,214</u>	<u>651,676,123</u>	<u>635,135,187</u>	<u>459,061,560</u>	<u>666,701,862</u>	<u>709,583,644</u>
838,748	967,089	1,020,502	812,724	772,152	627,777
-	-	-	-	-	-
89,726	33,087	-	-	-	-
22,432	6,617	-	-	-	-
33,647	13,235	-	-	-	-
56,079	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
149,746	67,892	82,352	97,483	73,257	40,169
3,437,243	3,261,490	3,238,839	3,079,961	3,136,086	2,419,077
1,374,738	1,290,519	1,301,710	1,161,317	1,259,309	1,039,129
549,572	152,199	680,096	372,747	788,598	470,971
91,498	122,606	121,831	112,089	91,881	85,386
-	6,617	-	-	-	-
-	6,617	-	-	-	-
-	-	-	-	-	-
-	6,617	-	-	12,132	-
148,411,413	168,836,505	138,054,929	20,999,403	152,032,213	169,440,796
1,813,028	-	-	-	-	-
<u>156,867,870</u>	<u>174,771,090</u>	<u>144,500,259</u>	<u>26,635,724</u>	<u>158,165,628</u>	<u>174,123,305</u>
<u>\$ (445,047,344)</u>	<u>\$ (476,905,033)</u>	<u>\$ (490,634,928)</u>	<u>\$ (432,425,836)</u>	<u>\$ (508,536,234)</u>	<u>\$ (535,460,339)</u>

El Paso Independent School District  
General Revenues and Total Changes in Net Position  
Last Ten Fiscal Years  
(Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-3

	<b>Fiscal Year</b>			
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>Net (Expense)/Revenue</b>				
Total primary government net expense	\$ (385,465,413)	\$ (408,187,834)	\$ (429,737,252)	\$ (444,228,251)
<b>General Revenues and Other Changes in Net Position</b>				
Governmental activities:				
Taxes				
Property Taxes, Levied for General Purposes	149,785,778	155,593,855	159,567,947	160,651,112
Property Taxes, Levied for Debt Service	28,089,688	29,335,978	29,890,918	30,598,437
State Aid - Formula Grants	253,412,470	257,099,598	257,579,380	266,907,606
Investment Earnings	662,766	609,671	601,895	482,745
Miscellaneous Local and Intermediate Revenue	1,506,159	1,768,203	1,746,104	1,760,303
Special Item - Gain on Sale of Capital Assets	-	-	-	-
Special Item - Loss on Sale of Capital Assets	-	-	-	-
Special Item - Insurance Proceeds and Sale of Property	2,858,576	1,924,371	965,490	-
Special Item - Tax Refunds	-	-	-	-
Total Primary Government	<u>436,315,437</u>	<u>446,331,676</u>	<u>450,351,734</u>	<u>460,400,203</u>
<b>Change in Net Position</b>				
Total Primary Government	<u>\$ 50,850,024</u>	<u>\$ 38,143,842</u>	<u>\$ 20,614,482</u>	<u>\$ 16,171,952</u>

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit B-1

El Paso Independent School District  
General Revenues and Total Changes in Net Position  
Last Ten Fiscal Years  
(Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-3

<b>Fiscal Year</b>					
<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>
\$ (445,047,344)	\$ (476,905,033)	\$ (490,634,937)	\$ (432,425,836)	\$ (508,536,234)	\$ (535,460,339)
161,542,945	166,057,072	166,608,995	165,234,610	188,483,717	177,616,119
30,733,241	25,552,979	26,151,675	37,843,244	22,703,958	33,496,929
270,032,641	296,320,100	284,558,292	282,665,023	285,532,642	316,739,977
462,759	914,170	2,691,629	6,117,955	11,039,498	10,170,641
1,581,098	1,643,615	1,426,968	1,377,256	1,632,754	1,552,514
(476,580)	(110,260)	78,385	461,350	1,782,592	-
-	-	-	-	-	(552,792)
-	-	-	-	-	-
-	-	-	(1,082,970)	-	-
<u>463,876,104</u>	<u>490,377,676</u>	<u>481,515,944</u>	<u>492,616,468</u>	<u>511,175,161</u>	<u>539,023,388</u>
<u>\$ 18,828,760</u>	<u>\$ 13,472,643</u>	<u>\$ (9,118,993)</u>	<u>\$ 60,190,632</u>	<u>\$ 2,638,927</u>	<u>\$ 3,563,049</u>

El Paso Independent School District  
Fund Balances, Governmental Funds  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-4

	<b>Fiscal Year</b>			
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>General Fund</b>				
Nonspendable	\$ 1,292,834	\$ 2,004,324	\$ 1,506,209	\$ 1,493,992
Restricted	9,964,710	2,686,618	2,621,294	2,040,637
Assigned	3,325,061	12,061,937	12,087,463	45,276,752
Unassigned	72,997,314	81,498,168	85,216,104	52,891,143
Total General Fund	<u>\$ 87,579,919</u>	<u>\$ 98,251,047</u>	<u>\$ 101,431,070</u>	<u>\$ 101,702,524</u>
 <b>All Other Governmental Funds</b>				
Restricted	166,273,021	160,226,033	151,787,441	131,213,977
Total All Other Governmental Funds	<u>\$ 166,273,021</u>	<u>\$ 160,226,033</u>	<u>\$ 151,787,441</u>	<u>\$ 131,213,977</u>
Total Governmental Funds	<u><u>\$ 253,852,940</u></u>	<u><u>\$ 258,477,080</u></u>	<u><u>\$ 253,218,511</u></u>	<u><u>\$ 232,916,501</u></u>

**Note:** The District adopted the provisions of GASB 54 in 2011. Therefore, the fund balances beginning in 2011 conform with GASB 54.

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit C-1

El Paso Independent School District  
Fund Balances, Governmental Funds  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-4

<b>Fiscal Year</b>					
<u><b>2015</b></u>	<u><b>2016</b></u>	<u><b>2017</b></u>	<u><b>2018</b></u>	<u><b>2019</b></u>	<u><b>2020</b></u>
\$ 1,475,114	\$ 2,193,466	\$ 1,775,606	\$ 1,903,861	\$ 1,810,791	\$ 2,003,184
3,416,819	4,972,470	3,934,393	22,677,168	22,108,554	30,409,384
8,079,917	9,106,374	9,295,747	12,031,508	14,662,966	26,796,519
94,564,880	105,565,531	100,512,255	83,378,812	104,979,723	103,904,121
<hr/>					
\$ 107,536,730	\$ 121,837,841	\$ 115,518,001	\$ 119,991,349	\$ 143,562,034	\$ 163,113,208
<hr/>					
111,640,510	99,898,064	294,834,387	255,442,489	428,195,059	452,703,776
<hr/>					
\$ 111,640,510	\$ 99,898,064	\$ 294,834,387	\$ 255,442,489	\$ 428,195,059	\$ 452,703,776
<hr/>					
\$ 219,177,240	\$ 221,735,905	\$ 410,352,388	\$ 375,433,838	\$ 571,757,093	\$ 615,816,984
<hr/>					

El Paso Independent School District  
Governmental Funds Revenues  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-5

	<b>Fiscal Year</b>			
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>Federal Revenues</b>	\$ 112,375,242	\$ 110,362,951	\$ 96,063,689	\$ 102,769,714
<b>State Revenues</b>	\$ 301,538,773	\$ 305,161,416	\$ 293,511,157	\$ 303,709,371
<b>Local Revenues:</b>				
Property Taxes	\$ 177,381,179	\$ 185,916,432	\$ 190,837,484	\$ 195,194,480
Investment Income	667,278	620,385	617,078	487,493
Extracurricular/Cocurricular Activities	645,486	805,728	956,181	869,750
Athletics	500,754	557,824	485,275	507,911
Tuition and Fees	493,477	924,709	584,730	666,642
Insurance Recovery	2,858,576	1,924,371	798,926	-
Refunds and Credits	-	-	-	426,985
Surplus Sales	-	-	-	-
Rent	115,893	132,900	132,499	231,409
Purchasing Rebates	-	-	-	-
Vehicle Inventory Tax	-	-	-	-
Services to Other Districts	-	-	-	-
Transportation Revenue	343,103	314,720	173,120	283,499
Legal settlements/restitution	-	-	-	-
Food Service Activity	4,683,414	5,127,111	4,897,502	4,645,907
Shared Services Arrangements	481,512	612,167	534,329	634,057
Army Youth Grant	-	-	265,056	188,562
CREED Grant	-	-	-	-
Digital Promise Grant	-	-	-	-
Local Teacher Stipend Region XIX	-	-	-	-
Other Local Revenue	939,182	1,319,374	1,005,906	624,238
Paso del Norte Health Foundation	791,205	338,969	-	-
Teens Against Tobacco Use	-	-	-	-
Power Up Sales	-	-	-	-
Arrest Fees	-	-	-	-
Dollar General Adult Literacy Grant	-	-	-	-
<b>Total Local Revenues</b>	<b>189,901,059</b>	<b>198,594,690</b>	<b>201,288,086</b>	<b>204,760,933</b>
<b>Total Governmental Fund Revenues</b>	<b>\$ 603,815,074</b>	<b>\$ 614,119,057</b>	<b>\$ 590,862,932</b>	<b>\$ 611,240,018</b>

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit C-3 & Notes to the Financial Statements - Revenues from Local and Intermediate Sources.

El Paso Independent School District  
Governmental Funds Revenues  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-5

<b>Fiscal Year</b>					
<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>
\$ 109,093,030	\$ 113,925,693	\$ 95,734,334	\$ 89,663,491	\$ 87,897,131	\$ 105,498,445
\$ 309,434,712	\$ 337,778,392	\$ 321,294,091	\$ 318,439,273	\$ 330,022,793	\$ 356,091,575
\$ 194,253,019	\$ 192,558,854	\$ 194,652,001	\$ 204,685,528	\$ 212,858,581.00	\$ 211,857,048.00
466,468	925,921	2,711,541	6,183,575	11,204,087	10,298,493
862,725	848,591	794,659	799,803	906,334	679,352
489,581	435,311	507,051	429,238	417,781	359,977
592,002	418,519	490,432	318,323	338,316	244,849
-	-	-	-	-	126,221
197,245	87,034	273,874	41,768	52,715	88,847
-	118,982	134,158	200,500	79,231	85,654
91,498	115,989	121,830	112,089	91,881	85,386
-	-	157,877	120,985	188,072	82,093
-	179,108	77,271	128,543	83,842	59,493
-	178,000	151,000	82,000	82,000	50,000
138,531	61,275	82,352	97,483	73,257	40,169
-	-	-	-	242,360	28,657
3,440,150	3,264,489	3,260,640	3,004,306	3,010,618	2,410,757
566,069	445,879	426,506	488,461	465,066	264,137
166,441	152,617	161,651	172,078	142,691	90,182
-	-	-	-	-	85,640
-	-	-	126,697	51,472	47,205
				23,973	20,795
968,799	295,580	448,213	470,359	651,432	371,735
-	-	-	-	-	-
-	-	132,650	-	-	-
-	83,217	87,216	-	-	-
-	-	-	66,088	-	-
				10,017	-
202,232,528	200,169,366	204,670,922	217,527,824	230,973,726	227,376,690
\$ 620,760,270	\$ 651,873,451	\$ 621,699,347	\$ 625,630,588	\$ 648,893,650	\$ 688,966,710

El Paso Independent School District  
Governmental Funds Expenditures and Debt Service Ratio  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-6

	<b>Fiscal Year</b>			
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>Expenditures</b>				
Instruction & Instructional-Related Services	\$ 344,108,736	\$ 351,937,029	\$ 337,339,593	\$ 355,204,593
Instructional & School Leadership	36,140,406	37,566,973	38,703,718	40,403,070
Support Services - Student	76,596,294	82,156,745	86,594,578	88,544,338
Administrative Support Services	8,762,857	9,160,625	10,827,015	10,052,278
Support Services - Non-Student	51,271,365	60,837,972	60,861,490	61,072,541
Ancillary Services	1,381,332	1,306,663	1,305,738	1,393,226
Debt Service - Principal on Long Term Debt	6,919,642	23,018,047	21,901,912	20,449,806
Debt Service - Interest on Long Term Debt	15,876,723	22,770,674	25,309,858	23,830,056
Facilities Acquisition and Construction	15,220,879	20,530,072	14,857,234	28,122,514
Tax Appraisal Charges	2,453,151	2,597,440	2,397,256	2,409,511
<b>Total Expenditures</b>	<b><u>\$ 558,731,385</u></b>	<b><u>\$ 611,882,240</u></b>	<b><u>\$ 600,098,392</u></b>	<b><u>\$ 631,481,933</u></b>
Capital Expenditures <sup>a</sup>	18,058,124	28,624,623	22,071,369	32,225,424
Debt Service as a Percentage of Noncapital Expenditures <sup>b</sup>	4.22%	7.85%	8.17%	7.39%

**Notes:**

<sup>a</sup>Capital Expenditures is the sum Total Depreciable & Non-Depreciable Assets - "Additions Column" from Notes to the Financial Statements - Capital Asset Activity.

<sup>b</sup>To calculate the ratio, divide total debt service expenditures (principal and interest) by total noncapital expenditures (the difference between total expenditures and capitalized capital outlay expenditures).

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit C-3 & Notes to the Financial Statements - Capital Asset Activity



El Paso Independent School District  
Governmental Funds Expenditures and Debt Service Ratio  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-6

<b>Fiscal Year</b>					
<u><b>2015</b></u>	<u><b>2016</b></u>	<u><b>2017</b></u>	<u><b>2018</b></u>	<u><b>2019</b></u>	<u><b>2020</b></u>
\$ 359,566,953	\$ 378,773,258	\$ 365,077,948	\$ 370,724,075	\$ 364,058,010	\$ 382,309,249
41,118,673	43,562,134	43,809,911	44,187,373	43,785,191	46,079,876
98,339,042	95,945,921	97,400,331	96,344,669	94,184,459	94,331,265
9,872,121	10,558,626	12,058,499	12,554,541	14,190,644	15,038,228
60,581,113	65,551,410	67,878,509	69,757,514	69,825,796	68,721,010
1,481,398	1,452,006	1,511,179	1,533,838	1,413,859	1,503,156
25,619,992	17,928,549	16,607,552	17,567,932	18,673,931	11,327,955
17,776,016	16,086,313	16,071,302	24,688,538	25,467,459	35,409,759
14,509,520	13,319,682	10,078,638	42,983,219	101,367,841	235,702,930
2,348,227	2,416,260	2,589,237	2,558,238	2,540,161	2,388,693
<u><u>\$ 631,213,055</u></u>	<u><u>\$ 645,594,159</u></u>	<u><u>\$ 633,083,106</u></u>	<u><u>\$ 682,899,937</u></u>	<u><u>\$ 735,507,351</u></u>	<u><u>\$ 892,812,121</u></u>
23,317,072	16,020,071	17,831,276	52,685,722	108,091,534	238,717,627
7.14%	5.40%	5.31%	6.71%	7.04%	7.15%

El Paso Independent School District  
Other Financing Sources, Governmental Funds Uses and Net Change in Fund Balances  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-7

	<b>Fiscal Year</b>			
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>Excess of Revenues Over (Under) Expenditures</b>	\$ 45,083,689	\$ 2,236,817	\$ (9,235,460)	\$ (20,241,915)
<b>Other Financing Sources (Uses)</b>				
General Long-term Debt Issued	39,367,900	-	65,645,000	4,390,000
Sale of Real or Personal Property	-	-	166,564	-
Capital Leases	-	2,387,323	3,039,818	-
Non-Current Loans	1,958,247	-	-	-
Transfers In	684,059	736,514	1,299,171	11,008,452
Premium or Discount on Issuance of Bonds	4,825,646	-	10,943,116	-
Transfers Out	(684,059)	(736,514)	(1,299,171)	(11,068,547)
Payment to Bond Refunding Escrow Agent	-	-	-	-
Other (Uses)	(39,395,000)	-	(75,817,608)	(4,390,000)
Total Other Financing Sources (Uses)	<u>6,756,793</u>	<u>2,387,323</u>	<u>3,976,890</u>	<u>(60,095)</u>
Net Change in Fund Balances	<u>\$ 51,840,482</u>	<u>\$ 4,624,140</u>	<u>\$ (5,258,570)</u>	<u>\$ (20,302,010)</u>

**Source:** EPISD Comprehensive Annual Financial Report - Exhibit C-3

El Paso Independent School District  
Other Financing Sources, Governmental Funds Uses and Net Change in Fund Balances  
Last Ten Fiscal Years  
(Modified Accrual Basis of Accounting)  
(Unaudited)

**Exhibit 16** Exhibit S-7

<b>Fiscal Year</b>					
<u><b>2015</b></u>	<u><b>2016</b></u>	<u><b>2017</b></u>	<u><b>2018</b></u>	<u><b>2019</b></u>	<u><b>2020</b></u>
\$ (10,452,785)	\$ 6,279,302	\$ (11,383,759)	\$ (57,269,349)	\$ (86,613,701)	\$ (203,845,411)
183,295,000	-	181,835,000	37,715,000	257,760,000	252,315,000
-	-	-	1,003,844	3,716,282	5,890,191
-	-	-	-	10,847,034	-
-	-	-	-	-	-
684,059	684,059	2,184,301	2,100,457	2,361,267	16,811,267
33,808,270	-	19,592,616	1,824,673	10,974,630	34,196,258
(684,059)	(684,059)	(2,184,301)	(2,100,457)	(2,361,267)	(16,811,267)
-	-	-	(17,831,729)	-	-
(220,389,746)	(3,720,637)	(1,427,374)	(360,990)	(360,990)	(44,496,147)
(3,286,476)	(3,720,637)	200,000,242	22,350,798	282,936,956	247,905,302
<u>\$ (13,739,261)</u>	<u>\$ 2,558,665</u>	<u>\$ 188,616,483</u>	<u>\$ (34,918,551)</u>	<u>\$ 196,323,255</u>	<u>\$ 44,059,891</u>

El Paso Independent School District  
Assessed Value and Actual Value of Taxable Property  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-8

Tax Year	Fiscal Year	Assessed Value		Less: Tax-Exempt Property	Total Taxable Assessed <sup>a</sup> Value	Total Direct Tax Rate <sup>b</sup>
		Real Property	Personal Property			
2010	2011	16,832,793,587	2,054,549,641	3,314,855,501	15,572,487,727	1.2350
2011	2012	17,122,126,574	2,131,356,767	3,426,217,004	15,827,266,337	1.2350
2012	2013	18,018,925,948	2,243,014,008	3,669,036,165	16,592,903,791	1.2350
2013	2014	17,930,117,757	2,291,380,456	3,809,548,896	16,411,949,317	1.2350
2014	2015	17,960,450,295	2,347,203,306	3,915,797,057	16,391,856,544	1.2350
2015	2016	18,355,869,174	2,511,910,285	4,626,513,678	16,241,265,781	1.2350
2016	2017	18,716,432,036	2,456,734,712	4,780,575,845	16,392,590,903	1.2350
2017	2018	19,256,491,018	2,506,382,762	5,307,070,200	16,455,803,580	1.3100
2018	2019	19,983,550,324	2,583,824,629	5,571,729,212	16,995,645,741	1.3100
2019	2020	20,567,311,188	2,647,923,545	5,769,422,931	17,445,811,802	1.2684

**Notes:** <sup>a</sup>Assessed value less exemptions

<sup>b</sup>Per \$100 of assessed valuation

**Source:** El Paso Central Appraisal District Certified Values

El Paso Independent School District  
Assessed Value and Actual Value of Taxable Property  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-8

<b>Estimated Actual Taxable Value</b>	<b>Taxable Assessed Value as a Percentage of Actual Taxable Value</b>
18,887,343,228	82.45%
19,253,483,341	82.20%
20,261,939,956	81.89%
20,221,498,213	81.16%
20,307,653,601	80.72%
20,867,779,459	77.83%
21,173,166,748	77.42%
21,762,873,780	75.61%
22,567,374,953	75.31%
23,215,234,733	75.15%

El Paso Independent School District  
Direct and Overlapping Property Tax Rates  
Last Ten Fiscal Years  
(Rate Per \$100 of Assessed Value)  
(Unaudited)

**Exhibit 16** Exhibit S-9

Tax Year	Fiscal Year	District Direct Rates			Overlapping Rates <sup>a</sup>			
		General Fund	Debt Service	Total	City of El Paso	County of El Paso	El Paso Community College	UMC Hospital
2010	2011	1.04000	0.1950	1.23500	0.653700	0.363403	0.107329	0.182124
2011	2012	1.04000	0.1950	1.23500	0.658404	0.361196	0.115442	0.192363
2012	2013	1.04000	0.1950	1.23500	0.658404	0.408870	0.114086	0.192363
2013	2014	1.04000	0.1950	1.23500	0.678378	0.433125	0.124359	0.214393
2014	2015	1.04000	0.1950	1.23500	0.699784	0.452694	0.128122	0.220682
2015	2016	1.07000	0.1650	1.23500	0.729725	0.452694	0.133811	0.220682
2016	2017	1.07000	0.1650	1.23500	0.759656	0.452694	0.134909	0.234456
2017	2018	1.07000	0.2400	1.31000	0.803433	0.452694	0.141638	0.251943
2018	2019	1.17000	0.1400	1.31000	0.843332	0.447819	0.140273	0.251943
2019	2020	1.06835	0.2000	1.26835	0.907301	0.488997	0.141167	0.267747

**Note:** <sup>a</sup>Includes levies for operating and debt service costs

**Source:** City of El Paso Consolidated Tax Office

El Paso Independent School District  
Principal Property Taxpayers  
Current Year and Nine Years Ago  
(Unaudited)

Exhibit 16 Exhibit S-10

Taxpayer	Fiscal Year Ending 2020			Fiscal Year Ending 2011		
	Taxable	Percentage of		Taxable	Percentage of	
	Assessed Value	Rank	Taxable Value	Assessed Value	Rank	Taxable Value
Western Refining Co. LP	\$ 500,816,217	1	2.87%	\$ 365,473,266	1	2.35%
El Paso Electric Co.	205,279,299	2	1.18%	140,795,249	3	0.90%
Simon Property Group	127,863,268	3	0.73%	182,874,385	2	1.17%
Sierra Providence Physical Rehab Hospital	110,057,310	4	0.63%			
Wal-Mart Stores Inc.	105,205,600	5	0.60%			
Hawkins & I-10 Acquisition Co. LP	99,978,869	6	0.57%			
Texas Gas Service	79,437,830	7	0.46%	36,937,350	10	0.24%
Spectrum Gulf Coast LLC	60,306,260	8	0.35%			
Union Pacific Railroad	59,982,604	9	0.34%			
United Parcel Service Inc.	48,522,226	10	0.28%			
Tenet Hospitals LTD				128,546,712	4	0.83%
Southwestern Bell Telephone Co.				56,766,221	5	0.36%
Cardinal Health 200 Inc. Medical				53,869,442	6	0.35%
Freeport -McMoran Copper Refinery				52,215,680	7	0.34%
El Du Pont De Nemours & Co.				49,076,200	8	0.32%
River Oaks Properties LTD				47,487,394	9	0.30%
Subtotal	\$ 1,397,449,483		8.02%	\$ 1,114,041,899		7.16%
All other taxpayers	16,048,362,319		91.98%	14,458,445,828		92.84%
Total Taxable	\$ 17,445,811,802		100.00%	\$ 15,572,487,727		100.00%

Source: El Paso Central Appraisal District

El Paso Independent School District  
Property Tax Levies and Collections  
Last Ten Fiscal Years  
(Unaudited)

Exhibit 16

Exhibit S-11

Tax Fiscal					Collected in First Period	
					Collected	Percentage of Original
Year	Year	Original Levy	Adjustments	Adjusted Levy <sup>a</sup>	Amount <sup>b</sup>	Levy
2010	2011	\$ 180,788,049	\$ (1,212,382)	\$ 179,575,667	\$ 174,348,962	96.44%
2011	2012	\$ 185,960,327	\$ (674,364)	\$ 185,285,963	\$ 180,107,986	96.85%
2012	2013	\$ 196,207,547	\$ (6,104,480)	\$ 190,103,067	\$ 185,013,415	94.29%
2013	2014	\$ 194,977,459	\$ (974,442)	\$ 194,003,017	\$ 189,389,835	97.13%
2014	2015	\$ 196,149,777	\$ (1,223,720)	\$ 194,926,057	\$ 190,608,330	97.17%
2015	2016	\$ 194,791,582	\$ (1,257,559)	\$ 193,534,022	\$ 189,149,737	97.10%
2016	2017	\$ 197,493,543	\$ (1,878,831)	\$ 195,614,712	\$ 191,272,870	96.85%
2017	2018	\$ 208,794,854	\$ (1,619,477)	\$ 207,175,377	\$ 202,764,161	97.11%
2018	2019	\$ 215,270,550	\$ (1,699,686)	\$ 213,570,864	\$ 208,838,098	97.01%
2019	2020	\$ 214,336,577	\$ (1,497,913)	\$ 212,838,664	\$ 207,724,333	96.92%

**Note:** This schedule includes operating and debt service tax revenues.

**Source:** <sup>a</sup>City of El Paso Consolidated Tax Office  
<sup>b</sup>EPISD Comprehensive Annual Financial Report - Exhibit J-1  
<sup>c</sup>Tax Collections include the annual 60 day accrual of prior year collections



El Paso Independent School District  
Property Tax Levies and Collections  
Last Ten Fiscal Years  
(Unaudited)

Exhibit 16

Exhibit S-11

Collected in Subsequent Periods	Total Collections	
	Amount <sup>c</sup>	Percentage of Adjusted Levy
\$ 4,864,335	\$ 179,213,297	99.80%
\$ 4,635,126	\$ 184,743,112	99.71%
\$ 3,592,954	\$ 188,606,369	99.21%
\$ 2,536,142	\$ 191,925,977	98.93%
\$ 2,582,032	\$ 193,190,362	99.11%
\$ 1,963,923	\$ 191,113,660	98.75%
\$ 434,376	\$ 191,707,246	98.00%
\$ 2,401,290	\$ 205,165,451	99.03%
\$ 2,510,126	\$ 211,348,224	98.96%
\$ -	\$ 207,724,333	97.60%

El Paso Independent School District  
Outstanding Debt by Type  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-12

**Governmental Activities**

<b>Fiscal Year</b>	<b>Unlimited Tax Bonds<sup>a</sup></b>	<b>Loans Payable &amp; Other Long-Term Debt<sup>b</sup></b>	<b>Capital Leases</b>	<b>M&amp;O: MTNs QSC MTNs, Lease Revenue Bonds</b>	<b>Total Primary Government</b>
2011	494,046,776	5,352,942	3,683,609	21,915,000	524,998,327
2012	470,310,292	4,855,340	4,596,693	21,195,000	500,957,325
2013	444,377,042	4,238,706	6,200,193	20,445,000	475,260,941
2014	427,301,519	3,603,364	4,744,161	19,665,000	455,314,044
2015	421,811,436	-	3,472,510	18,855,000	444,138,946
2016	402,476,988	-	1,428,932	15,275,000	419,180,920
2017	584,285,888	-	1,079,407	15,275,000	600,640,295
2018	562,855,940	721,980	724,793	36,386,960	600,689,673
2019	727,334,401	1,639,384	11,212,050	52,290,000	792,475,835
2020	907,225,357	1,303,218	10,832,688	69,460,000	988,821,263

**Notes:**

<sup>a</sup>Unlimited Tax Bonds equals GO Bonds Payable plus CABs Accretion

<sup>b</sup>Other payables - Asset Retirement Obligation

<sup>c</sup>Resources Restricted for Debt Service used in the calculation for Net Bonded Debt Outstanding comes Exhibit H-2.

**Source:**

EPISD Comprehensive Annual Financial Report - Note J - Long Term Liabilities

EPISD Comprehensive Annual Financial Report - Exhibit S-8 for Assessed Property Values

EPISD Comprehensive Annual Financial Report - Exhibit S-15 for Per Capita Income Information

EPISD Comprehensive Annual Financial Report - Exhibit H-2 Combining Statement of Revenues,

Expenditures and changes in Fund Balances - Nonmajor Governmental Funds

El Paso Independent School District  
Outstanding Debt by Type  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-12

<b>Resources Restricted for Debt Service<sup>c</sup></b>	<b>Net Bonded Debt Outstanding</b>	<b>Gross Bonded Debt as % of Personal Income</b>	<b>Gross Bonded Per Capita</b>	<b>Net Debt as % of Assessed Value</b>	<b>Net Debt Per Capita</b>
37,637,549	487,360,778	2.05%	1,504	3.13%	1,484
36,769,210	464,188,115	1.87%	1,442	2.93%	1,423
35,782,627	439,478,314	1.80%	1,359	2.65%	1,344
34,410,395	420,903,649	1.65%	1,360	2.56%	1,340
31,253,632	412,885,314	1.55%	1,360	2.52%	1,331
33,337,848	385,843,072	1.47%	1,315	2.38%	1,260
34,531,174	566,109,121	2.13%	1,948	3.45%	1,887
37,513,208	563,176,465	2.03%	1,918	3.42%	1,919
27,150,945	765,324,890	2.49%	2,420	4.50%	2,546
43,234,544	945,586,719	3.01%	2,869	5.42%	2,990

El Paso Independent School District  
Direct and Overlapping Governmental Activities Debt  
As of June 30, 2019  
(Unaudited)

**Exhibit 16** Exhibit S-13

<u>Governmental Unit</u>	<u>Total Tax Supported Debt as of 06/30/20</u>	<u>Estimated Percentage Applicable</u>	<u>Estimated Share of Direct and Overlapping Debt</u>
El Paso County	\$ 151,982,484	42.74%	\$ 64,957,314
El Paso County Hospital District	333,985,000	42.74%	142,745,189
City of El Paso	1,310,856,210	49.48%	648,611,652
Subtotal, Overlapping Debt			\$ 856,314,155
District Direct Debt <sup>a</sup>			<u>988,821,263</u>
Total Direct and Overlapping Debt			<u><u>\$ 1,845,135,418</u></u>
Ratio of Total Direct and Overlapping Debt to Assessed Valuation			<u><u>10.58%</u></u>
Per Capita Overlapping Debt			<u><u>\$ 6,255</u></u>

**Source:** Municipal Advisory Council of Texas

<sup>a</sup>Refer to Exhibit S-12 for District Direct Debt

**Method of calculation:** The percentage of each of the governmental units listed above that falls within the borders of the school district is applied to the total tax-supported debt of that entity to determine the overlapping debt of the El Paso Independent School District.

## Legal Debt Margin

Fiscal Year	Debt Limit	Total Net Debt		Total Net Debt Applicable to the Limit as a Percentage of Debt Limit
		Applicable to Limit	Legal Debt Margin	Limit
2011	1,557,248,773	457,825,667	1,099,423,106	29.40
2012	1,582,726,634	435,708,829	1,147,017,805	27.53
2013	1,659,290,379	411,543,660	1,247,746,719	24.80
2014	1,641,194,932	396,654,277	1,244,540,655	24.17
2015	1,639,185,654	395,167,159	1,244,018,495	24.11
2016	1,624,126,578	374,627,125	1,249,499,453	23.07
2017	1,639,259,090	556,156,553	1,083,102,537	33.93
2018	1,645,580,358	532,696,721	1,112,883,637	32.37
2019	1,699,564,574	702,714,813	996,849,761	41.35
2020	1,744,581,180	868,635,969	875,945,211	49.79

### Legal Debt Margin Calculation for Fiscal Year 2020

Assessed Value		\$	17,445,811,802
Debt limit (10% of assessed value)			1,744,581,180
Total bonded debt	\$	901,446,571	
Less reserve for retirement of debt		32,810,602	
Debt applicable to limit			868,635,969
Legal debt margin		\$	875,945,211

**Source:** Refer to Exhibit S-8 for Assessed Property Values

El Paso Independent School District  
Demographic and Economic Statistics

**Exhibit 16** Exhibit S-15

El Paso County  
Last Ten Fiscal Years  
(Unaudited)

Calendar Year	District Population <sup>a</sup>	Population <sup>b</sup>	Personal Income	Per Capita Personal <sup>c</sup>	Average Unemployment Rate <sup>d</sup>
2011	328,467	820,015	\$ 24,083,020,535	\$ 29,369	9.50%
2012	326,185	831,864	25,211,302,248	30,307	8.50%
2013	327,087	832,457	24,741,454,497	29,721	7.90%
2014	314,154	835,454	25,975,100,314	31,091	6.40%
2015	310,256	835,593	27,252,030,102	32,614	5.20%
2016	306,117	837,918	27,327,857,652	32,614	4.90%
2017	299,967	841,971	27,460,042,194	32,614	5.00%
2018	293,488	840,410	27,744,310,000	32,339	4.40%
2019	300,607	840,758	29,209,200,000	34,575	4.00%
2020	316,206	839,238	30,091,717,728	35,856	*8.70%

**Sources:** <sup>a</sup> EPISD Analytics, Strategy, Assessment & PEIMS Department & ACS Table B01003 2019

<sup>b</sup> U.S. Census Bureau, Population Division

<sup>c</sup> Bureau Of Economic Analysis

<sup>d</sup> Bureau of Labor Statistics - 2020 rate as of July 2020

El Paso Independent School District  
Principal Employers  
Current Year and Nine Years Ago  
(Unaudited)

**Exhibit 16** Exhibit S-16

<u>Employer</u>	Fiscal Year Ending 2020 <sup>b</sup>			Fiscal Year Ending 2011 <sup>c</sup>		
	<u>Employees</u>	<u>Rank</u>	<u>Percentage of Total Employment</u>	<u>Employees</u>	<u>Rank</u>	<u>Percentage of Total Employment</u>
Fort Bliss (Civilian)	12,678	1	3.54%	13,000	1	3.73%
El Paso Independent School District	7,875	2	2.20%	10,000	2	2.87%
Socorro Independent School District	7,195	3	2.01%	6,122	5	1.76%
City of El Paso	7,078	4	1.98%	6,272	4	1.80%
Ysleta Independent School District	6,022	5	1.68%	7,849	3	2.25%
T&T Staff Management L.P.	4,625	6	1.29%	5,182	6	1.49%
The Hospitals of Providence	3,144	7	0.88%			0.00%
University of Texas at El Paso	3,114	8	0.87%	5,081	7	1.46%
El Paso Community College	3,102	9	0.87%	4,585	8	1.32%
County of El Paso	2,980	10	0.83%	2,847	10	0.82%
Wal-Mart			0.00%	4,080	9	1.17%
	<u>57,813</u>		<u>16%</u>	<u>65,018</u>		<u>19%</u>

**Notes:**

Total employment for 2020 <sup>a</sup> : 358,376

Total employment for 2011 <sup>a</sup> : 348,277

**Sources:**

<sup>a</sup> Bureau of Labor Statistics (Datatables 2011 December & 2020 July)

<sup>b</sup> City of El Paso Economic Development Department

<sup>c</sup> City of El Paso CAFR 2011

El Paso Independent School District  
Full Time Equivalent District Employees by Type  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-17

	<b>Fiscal Year</b>				
	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>
<b>Professional Staff</b>					
Teacher	4,399	4,223	4,145	4,121	4,046
Professional Support Staff	1,175	1,086	1,074	1,088	1,056
Campus Administration (School Leadership)	224	217	223	230	226
Central Administration	22	23	58	53	34
Professional Staff Total	5,819	5,549	5,500	5,492	5,362
<b>Educational Aides</b>	446	408	408	412	449
<b>Auxiliary Staff</b>	2,326	2,236	1,963	2,267	2,247
Total Staff	8,592	8,193	7,871	8,171	8,058

	<b>Fiscal Year</b>					<b>Percent Change</b>
	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>	<b><u>2011-2020</u></b>
<b>Professional Staff</b>						
Teacher	3,993	3,977	4,046	3,900	3,840	-13%
Professional Support Staff	1,050	1,054	1,039	1,038	1,011	-14%
Campus Administration (School Leadership)	226	229	232	219	212	-5%
Central Administration	37	28	50	60	59	168%
Professional Staff Total	5,306	5,288	5,367	5,217	5,122	-12%
<b>Educational Aides</b>	443	483	476	458	493	10%
<b>Auxiliary Staff</b>	2,277	2,265	2,223	2,176	2,174	-7%
Total Staff	8,026	8,036	8,066	7,851	7,789	-9%

**Source:** TEA - Texas Academic Performance Report



El Paso Independent School District  
Operating Statistics  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-18

<b>Fiscal Year</b>	<b>Peak Enrollment</b>	<b>Operating Expenditures</b>	<b>Cost per Pupil</b>	<b>Teaching Staff</b>	<b>Pupil-Teacher Ratio</b>	<b>Percentage of Students Receiving Free or Reduced-Price Meals</b>
2011	64,066	517,864,346	8,083	4,399	14.6	67.7%
2012	63,878	508,102,881	7,954	4,223	15.1	72.8%
2013	63,541	535,546,665	8,428	4,145	15.3	72.2%
2014	61,864	555,623,580	8,981	4,121	15.0	72.4%
2015	61,151	569,670,146	9,316	4,046	15.1	78.2%
2016	60,257	576,316,318	9,564	3,993	15.1	77.0%
2017	59,688	586,932,449	9,833	3,977	15.0	76.5%
2018	58,549	581,697,183	9,935	4,046	14.5	76.1%
2019	57,477	580,122,308	10,093	3,900	14.7	77.3%
2020	55,454	585,681,188	10,562	3,840	14.4	73.3%

**Note:** Expenditures for computing per pupil cost are a total of actual expenditures as prescribed by the Texas Education Agency's Financial Accountability System Resource Guide. These include the General and Special Revenue Funds, excluding objects of Debt Service, Capital Outlay and Intergovernmental Charges.

**Source:** Nonfinancial information from State TAPR and AEIS Reports.  
Free and reduced from the annual State Summary of Finance.

	Fiscal Year			
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<b><u>Schools</u></b>				
<b>Elementary</b>				
Buildings	57	57	57	57
Square feet	4,172,606	4,205,461	4,212,828	4,273,832
Capacity	38,046	38,403	38,420	38,692
Enrollment	31,089	30,864	30,567	29,728
<b>Intermediate/Middle</b>				
Buildings	16	16	16	16
Square feet	2,488,060	2,488,060	2,432,347	2,432,347
Capacity	18,568	18,568	18,082	18,082
Enrollment	13,661	13,471	13,293	13,038
<b>High</b>				
Buildings	12	12	12	12
Square feet	2,890,141	2,890,141	2,890,141	2,890,621
Capacity	19,570	19,570	19,570	19,570
Enrollment	19,273	19,459	19,024	18,524
<b><u>District-Wide</u></b>				
Buildings	11	11	11	11
Square feet	358,041	358,041	358,041	358,041
Capacity	3,644	3,644	3,644	3,644
Enrollment	64,023	63,794	62,884	61,290
<b><u>Administrative</u></b>				
Buildings	7	7	6	6
Square feet	360,503	360,503	352,747	352,747
<b><u>Misc. Support Facilities</u></b>				
Buildings	6	6	6	5
Square feet	142,820	142,820	142,820	123,620
<b><u>Portable Classrooms</u></b>				
Buildings	448	448	448	448
Square feet	335,104	335,104	335,104	335,104
<b><u>Custodial Residences</u></b>				
Buildings	77	77	77	77
Square feet	84,762	84,762	84,762	84,762
<b><u>Athletics</u></b>				
Stadiums	8	8	8	8
Football/soccer/play fields	111	111	112	112
Running tracks	11	11	11	11
Baseball/softball	21	21	22	22

**Source:** EPISD Facilities & Construction Department

El Paso Independent School District  
Building Information  
Last Ten Fiscal Years  
(Unaudited)

**Exhibit 16** Exhibit S-19

Fiscal Year					
<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
57	57	57	57	57	53
4,309,049	4,334,649	4,339,769	4,339,769	4,339,769	4,096,644
39,049	39,134	39,151	39,151	39,151	37,008
29,276	28,601	28,446	27,442	27,442	25,940
16	16	16	16	16	16
2,432,347	2,432,347	2,432,347	2,432,347	2,432,347	2,432,347
18,082	18,082	18,082	18,082	18,082	18,082
12,867	12,508	12,335	12,288	12,288	12,288
12	12	12	12	12	12
2,927,943	2,927,943	2,929,835	2,929,835	2,929,835	2,929,835
19,798	19,798	19,798	19,798	19,798	19,798
18,413	18,663	18,969	18,596	18,596	18,596
11	11	11	11	11	11
358,041	358,041	358,041	358,041	358,041	358,041
3,644	3,644	3,644	3,644	3,644	3,644
60,556	59,772	59,750	58,326	58,326	58,326
6	6	6	6	6	6
352,747	352,747	352,747	352,747	352,747	352,747
5	5	5	5	5	5
123,620	123,620	123,620	123,620	123,620	123,620
448	448	448	448	448	448
335,104	335,104	335,104	335,104	335,104	335,104
77	77	77	77	77	77
84,762	84,762	84,762	84,762	84,762	84,762
9	9	10	10	10	10
114	115	115	115	115	115
11	11	11	11	11	11
22	22	22	22	22	22

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**REPORTS ON COMPLIANCE, INTERNAL CONTROL, AND FEDERAL AWARDS**

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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER  
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS  
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED  
IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Trustees  
El Paso Independent School District

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of El Paso Independent School District, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise El Paso Independent School District's basic financial statements, and have issued our report thereon dated November 4, 2020.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered El Paso Independent School District's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of El Paso Independent School District's internal control. Accordingly, we do not express an opinion on the effectiveness of El Paso Independent School District's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether El Paso Independent School District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink, appearing to read "Gibson Ruddock Patterson, LLC". The signature is fluid and cursive, with the letters "G", "R", and "P" being particularly prominent.

Gibson Ruddock Patterson, LLC  
El Paso, Texas  
November 4, 2020



INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE  
FOR EACH MAJOR PROGRAM AND ON INTERNAL CONTROL  
OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE

To the Board of Trustees  
El Paso Independent School District

**Report on Compliance for Each Major Federal Program**

We have audited El Paso Independent School District's compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of El Paso Independent School District's major federal programs for the year ended June 30, 2020. El Paso Independent School District's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

***Management's Responsibility***

Management is responsible for compliance with the federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

***Auditor's Responsibilities***

Our responsibility is to express an opinion on compliance for each of El Paso Independent School District's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about El Paso Independent School District's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of El Paso Independent School District's compliance.

**Opinion on Each Major Federal Program**

In our opinion, El Paso Independent School District, complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2020.

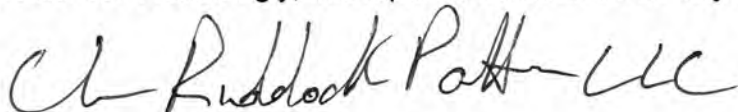
**Report on Internal Control Over Compliance**

Management of the El Paso Independent School District is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered El Paso Independent School District's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of El Paso Independent School District's internal control over compliance.

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.



Gibson Ruddock Patterson, LLC  
El Paso, Texas  
November 4, 2020

## SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2020

**SUMMARY OF AUDITOR'S RESULTS****Financial Statements**

Type of Auditor's Report issued on whether the financial statements audited were prepared in accordance with GAAP:

Unmodified

Internal control over financial reporting:

Were significant deficiencies in internal control disclosed?

None reported

Were material weaknesses in internal control disclosed?

No

Was any noncompliance disclosed that is material to the financial statements of the auditee, which would be required to be reported in accordance with Government Auditing Standards?

No

**Federal Awards**

Internal control over major federal award programs:

Were significant deficiencies in internal control over major programs disclosed?

None reported

Were material weaknesses in internal control over major programs disclosed?

No

Type of auditor's report issued on compliance for major federal programs:

Unmodified

Were there any audit findings that the auditor is required to report under Title 2 CFR 200.516 Audit findings paragraph (a)?

No

Major Federal Programs:

**Impact Aid:**

CFDA 84.041

**Special Education Cluster:**

IDEA, Part B - CFDA 84.027A

IDEA Preschool - CFDA 84.173A

**Title IV, Part A - Student Support and Academic Enrichment:**

CFDA 84.424A

**ESSER - School Emergency Relief:**

CFDA 84.425D

(Continued)

## SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2020

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<b>Dollar threshold used to distinguish between type A and type B programs:</b>	\$ 2,882,078
<b>Did auditee qualify as a low-risk auditee under 2 CFR 200.520 Criteria for a low-risk auditee?</b>	Yes

(Continued)

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2020

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**FINANCIAL STATEMENT FINDINGS**

There are no current year findings.

**FEDERAL AWARD FINDINGS AND QUESTIONED COSTS**

There are no current year findings.

SCHEDULE OF STATUS OF PRIOR FINDINGS

FOR THE YEAR ENDED JUNE 30, 2020

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**FINANCIAL STATEMENT FINDINGS**

There were no prior year findings.

**FEDERAL AWARD FINDINGS & QUESTIONED COSTS**

There were no prior year findings.

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
FOR THE YEAR ENDED JUNE 30, 2020

(1) FEDERAL GRANTOR/ PASS-THROUGH GRANTOR/ PROGRAM or CLUSTER TITLE	(2) Federal CFDA Number	(3) Pass-Through Entity Identifying Number	(4) Federal Expenditures
<b>DEPARTMENT OF TRANSPORTATION</b>			
<u>Passed Through Texas Department of Transportation</u>			
Selective Traffic Enforcement Program (STEP)	20.600	2019ElPasoS1YG00058	\$ 5,145
Total Passed Through Texas Department of Transportation			5,145
<b>TOTAL DEPARTMENT OF TRANSPORTATION</b>			5,145
<b>U.S. DEPARTMENT OF DEFENSE</b>			
<u>Direct Programs</u>			
JROTC	12.357	N/A	624,652
Military Connected Schools (DoDEA2015)	12.556	HE 1254-15-1-0034	361,485
Hands-On Minds-On Math: 21st Century (DoDEA2017)	12.556	HE 1254-17-1-0002	208,663
Gateway to STEM for Military Communities (DoDEA19)	12.556	HE 1254-19-1-0031	43,238
Total CFDA Number 12.556			613,386
Impact Aid Severe Disability	12.558	N/A	22,241
Total Direct Programs			1,260,279
<b>TOTAL U.S. DEPARTMENT OF DEFENSE</b>			1,260,279
<b>U.S. DEPARTMENT OF EDUCATION</b>			
<u>Direct Programs</u>			
Impact Aid - P.L.	84.041	SO41B20114905	4,294,988
Total Direct Programs			4,294,988
<u>Passed Through Ysleta Independent School District</u>			
SSA - Adult Education (ABE) - Federal	84.002A	1018ALA000-2	564,225
SSA - English Literacy and Civics Education Grant	84.002A	1018ALA000-2	103,287
SSA - Adult Education (ABE) - Federal Incentive	84.002A	1018ALA000-2	3,762
Total CFDA Number 84.002A			671,274
Total Passed Through Ysleta Independent School District			671,274
<u>Passed Through State Department of Education</u>			
School Redesign Grant Pilot Cycle	84.010A	186101207110002	246,924
Transformation Zone Planning, Continuation and Imp	84.010A	186101217110002	3,773,517
ESSA, Title I, Part A - Improving Basic Programs	84.010A	19610101071902	250,660
ESSA, Title I, Part D, Subpart 2-Delinquent Prog	84.010A	19610103071902	5,888
ESSA, Title I, School Improvement	84.010A	19610141071902	27,809
School Transformation Fund Planning	84.010A	196101427110007	15
ESSA, Title I, Part A - Improving Basic Programs	84.010A	20610101071902	20,024,650
ESSA, Title I, Part D, Subpart 2-Delinquent Prog	84.010A	20610103071902	179,231
ESSA, Title I, School Improvement	84.010A	20610141071902	208,756
Total CFDA Number 84.010A			24,717,450
ESSA Title I, Part C, Edu. of Migratory Children	84.011	20615001071902	333,442
*IDEA - Part B, Formula	84.027A	186600010719026600	46,246
*IDEA - Part B, Formula	84.027A	196600010719026600	1,182,584
*IDEA - Part B, Formula	84.027A	206600010719026600	9,525,802
*SSA - IDEA - Part B, Discretionary Deaf	84.027A	196600110719026673	3,234
*SSA - IDEA - Part B, Discretionary Deaf	84.027A	206600110719026673	151,226
Total CFDA Number 84.027A			10,909,092
*IDEA - Part B, Preschool	84.173A	186610010719026610	3
*IDEA - Part B, Preschool	84.173A	196610010719026610	11,670

See Accompanying Notes to the Schedule of Expenditures of Federal Awards

EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
FOR THE YEAR ENDED JUNE 30, 2020

(1) FEDERAL GRANTOR/ PASS-THROUGH GRANTOR/ PROGRAM or CLUSTER TITLE	(2) Federal CFDA Number	(3) Pass-Through Entity Identifying Number	(4) Federal Expenditures
*IDEA - Part B, Preschool	84.173A	206610010719026610	170,509
Total CFDA Number 84.173A			182,182
Total Special Education Cluster (IDEA)			11,091,274
Carl D. Perkins Career & Technical Basic Grant	84.048A	19420006071902	43,111
Carl D. Perkins Career & Technical Basic Grant	84.048A	20420006071902	801,250
Total CFDA Number 84.048A			844,361
SSA - IDEA, Part C - Early Intervention (Deaf)	84.181A	193911010719023911	33
SSA - IDEA, Part C - Early Intervention (Deaf)	84.181A	203911010719023911	149
Total CFDA Number 84.181A			182
Texas Education for Homeless Children & Youth	84.196A	194600057110025	13,893
Texas Education for Homeless Children & Youth	84.196A	204600057110025	92,060
Total CFDA Number 84.196A			105,953
Title III, Part A - English Language Acquisition	84.365A	19671001071902	248
Title III, Part A - English Language Acquisition	84.365A	20671001071902	1,026,161
Total CFDA Number 84.365A			1,026,409
ESSA, Title II, Part A, Supporting Effective Instr	84.367A	19694501071902	3,562
ESSA, Title II, Part A, Supporting Effective Instr	84.367A	20694501071902	1,848,125
Total CFDA Number 84.367A			1,851,687
Title VI Summer LEP	84.369A	69551502	25,378
Title IV Part A - Student Support & Academic Enr.	84.424A	19680101071902	272,855
Title IV Part A - Student Support & Academic Enr.	84.424A	20680101071902	1,079,188
Total CFDA Number 84.424A			1,352,043
ESSER - School Emergency Relief	84.425D	20521001071902	18,703,462
Total Passed Through State Department of Education			60,051,641
<b>TOTAL U.S. DEPARTMENT OF EDUCATION</b>			<b>65,017,903</b>
<b>U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>			
<u>Passed Through Texas Dept of Health &amp; Human Srvc.</u>			
Medicaid Administrative Claiming Program - MAC	93.778	529-07-157-00191	139,816
Total Passed Through Texas Dept of Health & Human Srvc.			139,816
<u>Passed Through Ysleta Independent School District</u>			
SSA-Temporary Assistance for Needy Families (TANF)	93.558	1018ALA000-2	111,394
Total Passed Through Ysleta Independent School District			111,394
<b>TOTAL U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>			<b>251,210</b>
<b>U.S. DEPARTMENT OF JUSTICE</b>			
<u>Direct Programs</u>			
COPS Office School Violence Prevention Program	16.607	2019SVWX0027	132,145
Fed COPS-Hiring	16.710	2016UMWX0161	61,117
Office of Violence Against Women	16.888	N/A	47,385
Total Direct Programs			240,647
<u>Passed Through Texas Office of Governor - CJD</u>			
Specialized Services to At-Risk Students - DOJ	16.738	2017DLBX0053	87,177

See Accompanying Notes to the Schedule of Expenditures of Federal Awards



EL PASO INDEPENDENT SCHOOL DISTRICT  
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
FOR THE YEAR ENDED JUNE 30, 2020

(1) FEDERAL GRANTOR/ PASS-THROUGH GRANTOR/ PROGRAM or CLUSTER TITLE	(2) Federal CFDA Number	(3) Pass-Through Entity Identifying Number	(4) Federal Expenditures
Total Passed Through Texas Office of Governor - CJD			87,177
<b>TOTAL U.S. DEPARTMENT OF JUSTICE</b>			<b>327,824</b>
<b>U.S. DEPARTMENT OF AGRICULTURE</b>			
<u>Direct Programs</u>			
Child & Adult Care Food Program	10.558	206TX333N1099	1,676,314
Total Direct Programs			1,676,314
<u>Passed Through the State Department of Agriculture</u>			
**National School Breakfast Program	10.553	206TX332N1099	7,578,720
**National School Lunch Program - Cash Assistance	10.555	206TX332N1099	16,850,644
**National School Lunch Prog - Non-Cash Assistance	10.555	206TX332N1099	2,292,023
Total CFDA Number 10.555			19,142,667
**Summer Feeding Program - Cash Assistance	10.559	206TX332N1099	24,492
Total Child Nutrition Cluster			26,745,879
Fresh Fruit Vegetable Program	10.582	206TX375L1603	29,703
Fresh Fruit Vegetable Program	10.582	206TX375L1603	87,021
Total CFDA Number 10.582			116,724
Total Passed Through the State Department of Agriculture			26,862,603
<b>TOTAL U.S. DEPARTMENT OF AGRICULTURE</b>			<b>28,538,917</b>
<b>U.S. DEPARTMENT OF HOUSING &amp; URBAN DEVELOPMENT</b>			
<u>Passed Through City of El Paso</u>			
EPISD Gene Roddenberry Planetarium Relocation	14.218	1810391610	667,989
Total Passed Through City of El Paso			667,989
<b>TOTAL U.S. DEPARTMENT OF HOUSING &amp; URBAN DEVELOPMENT</b>			<b>667,989</b>
<b>TOTAL EXPENDITURES OF FEDERAL AWARDS</b>			<b>\$ 96,069,267</b>

\*, \*\* - Clustered Programs

NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
FOR THE YEAR ENDED JUNE 30, 2020

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**1. GENERAL**

For all federal programs, the District uses the fund types specified in the Texas Education Agency's *Financial Accountability System Resource Guide*.

Special Revenue Funds are used to account for resources restricted to, or committed for specific purposes by a grantor. Federal and state financial assistance generally is accounted for in a Special Revenue Fund. If balances have not been expended by the end of the project period, grantors sometimes require the District to refund all or part of the unused amount.

The accompanying schedule of expenditures of federal awards (the "schedule") includes the federal award activity of the District under programs of the federal government for the year ended June 30, 2020. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the schedule presents only a selected portion of the operations of the District, it is not intended to and does not present the financial position, changes in net assets, or cash flows of the District.

**2. BASIS OF ACCOUNTING**

Accounting and Financial Reporting

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. The governmental fund types are accounted for using a current financial resources measurement focus. All Federal grant funds are accounted for either in the General Fund or a Special Revenue Fund which are governmental fund types. With this measurement focus, only current assets, deferred outflows of resources, current liabilities, and deferred inflows of resources generally are included on the balance sheet. Operating statements of these funds present increases (i.e., revenues and other financing sources) and decreases (i.e., expenditures and other financing uses) in fund balance.

The modified accrual basis of accounting is used for the governmental fund types. This basis of accounting recognizes revenues in the accounting period in which they become susceptible to accrual, i.e., both measurable and available, and expenditures in the accounting period in which the fund liability is incurred, if measurable, except for unmatured interest on general long-term debt, which is recognized when due, and certain compensated absences and claims and judgments, which are recognized when the obligations are expected to be liquidated with expendable available financial resources.

(Continued)

## NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2020

**2. BASIS OF ACCOUNTING (Continued)**

Federal grant funds are considered to be earned to the extent of expenditures made under the provisions of the grant. When grant funds are received before expenditures are made, they are recorded as unearned revenues until earned. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Due to the nature of the reporting process for the SHARS program, the District recognizes SHARS revenue upon receipt of the reimbursement notice from the federal government.

Period of Performance

The period of performance for federal grant funds for the purpose of liquidation of outstanding obligations made on or before the ending date of the federal project period extended 90 days beyond the federal project period ending date, in accordance with provisions in Section H, Period of Performance of Federal Funds, Part 3, OMB Compliance Supplement - August 2020.

Matching

Matching contributions were not required for any of the federal awards.

**3. INDIRECT COST RATE**

The District did not elect to use the 10% de minimus indirect cost rate, but used the indirect cost rate assigned by the Texas Education Agency.

The District accounted for federally funded indirect costs in the General Fund as follows:

Program Title	Federal CFDA Number	Amount
ESSA Title I, Part A, D, and SIP	84.010A	\$ 724,600
IDEA - Part B, Formula	84.027A	340,538
ESSA, Title II, Part A, Supporting Effective Instruction	84.367A	62,666
Title IV, Part A, Student Support & Academic Enrich.	84.424A	38,660
Title III, Part A - English Lang. Acquisition	84.365A	33,934
Carl D. Perkins Career & Technical Basic Grant	84.048A	27,870
ESSA Title I, Part C, Ed. of Migratory Children	84.011	12,642
IDEA - Part B, Preschool	84.173A	5,879
SSA - IDEA - Part B, Discretionary Deaf	84.027A	4,763
Texas Education for Homeless Children & Youth	84.196A	3,593
Total Indirect Costs		<u>\$ 1,255,145</u>

(Continued)

NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
FOR THE YEAR ENDED JUNE 30, 2020

**4. RECONCILIATION**

Of the federal expenditures presented in the Exhibit K-1, the District accounted for certain funds in the General Fund as follows:

Program Title	Federal CFDA Number	Amount
JROTC	12.357	\$ 624,652
Impact Aid	84.041	4,294,988
Impact Aid Severe Disability	12.558	22,241
Indirect Costs (See Note 3 for detail)	84.XXX	<u>1,255,145</u>
		6,197,026
SHARS (not included on Exhibit K-1)		<u>9,429,178</u>
Total General Fund		<u><u>\$ 15,626,204</u></u>

The total federal revenue presented in Exhibit K-1 can be reconciled to Exhibit C-3 as follows:

Expenditures of federal awards per Exhibit K-1	\$ 96,069,267
School Health and Related Services (SHARS) reimbursements	<u>9,429,178</u>
Total federal revenue per Exhibit C-3	<u><u>\$ 105,498,445</u></u>

**5. PROGRAM INCOME**

The Child Nutrition Cluster generated program income in the amount of \$2,575,717 for the year ended June 30, 2020.



EL PASO  
INDEPENDENT  
SCHOOL DISTRICT

Financial Services  
Education Center • 6531 Boeing Dr. El Paso TX 79925  
Phn 915.230.2145 • Fax 915.230.0120 [www.episd.org](http://www.episd.org)



*The El Paso Independent School District does not discriminate in its educational programs or employment practices on the basis of race, color, age, sex, religion, national origin, marital status, citizenship, military status, disability, genetic information, gender stereotyping and perceived sexuality, or on any other basis prohibited by law. Inquiries concerning the application of Titles VI, VII, IX, and Section 504 may be referred to the District compliance officer, Patricia Cortez, at 230-2033; Section 504 inquiries regarding students may be referred to Verna Ball at 230-2829.*

Cause No. \_\_\_\_\_

<b>Sargon Bebla, Cassandra Bebla,</b>	§	<b>IN THE DISTRICT COURT</b>
<b>Dana Garner, Andrea Hartley,</b>	§	
<b>MacKenzie Martinez, Alofagia</b>	§	
<b>Oney, Denise Prieve, Michelle Rechtien</b>	§	
<b>Jessica Lizette Rodriguez, William C.</b>	§	
<b>Roll, Jr.,</b>	§	
<b><i>Plaintiffs,</i></b>	§	
	§	
<b>v.</b>	§	<b>__ JUDICIAL DISTRICT</b>
	§	
	§	
	§	
<b>Vince Sheffield, Leah Hanany, Al Velarde</b>	§	
<b>Josh Acevendo, Isabel Hernandez</b>	§	
<b>Israel Irrobali, Freddy Khlael-Avalos,</b>	§	
<b>El Paso Independent School District</b>	§	
<b><i>Defendants.</i></b>	§	<b>EL PASO COUNTY, TEXAS</b>

### **TEMPORARY RESTRAINING ORDER**

This matter was heard upon Plaintiffs' application for temporary restraining order, *ex parte*. Based on *Plaintiffs' Original Petition, Request for Declaratory Judgment, Application for Temporary Restraining Order, and Application for Temporary and Permanent Injunction* ("Application") and evidence attached, the Court GRANTS the Application as follows:

The Court FINDS that the current mask policy as described by Plaintiffs threatened by Defendants was made without authority and actually an illegal act under Gov. Abbott's Executive Order GA-38.

The Court further FINDS that the face-covering rule is an apparent violation of the Texas Open Meetings Act, which provides for injunctive relief to stop decisions made without proper

deliberation or authority, as the face-covering rule constitutes a policy decision made without a vote or notice on any agenda.

The Court FINDS that, unless enjoined, Plaintiffs face irreparable harm, including significant and irreparable damage to their right to a healthful environment while they receive a free and appropriate public education free of illegal activity sanctioned by the El Paso Independent School District, which Gov. Abbott's Executive Order GA-38 specifically prohibits.

Additionally, the Court FINDS immediate injunctive intervention is appropriate to prevent further harm and preserve the status quo before the Court can hear and consider the Plaintiff's application for a temporary injunction.

NOW, THEREFORE, good cause appearing, the Court GRANTS the application, and ORDERS Vince Sheffield, Leah Hanany, Al Velarde, Josh Acevendo, Isabel Hernandez, Israel Irrobali, Freddy Khlael-Avalos, and El Paso Independent School District ("Defendants") and their agents to cease enforcement actions of the face-covering rule described in the Application for fourteen (14) days pending an evidentiary hearing on Plaintiff's Application for temporary injunction, as follows:

Defendants shall not deny any student or parent access to El Paso Independent School District facilities based on a face covering, nor act in derogation of any right enjoyed by a person wearing a face covering, nor shall any unmasked student be segregated or treated in any manner differently from masked students.

This temporary restraining order is granted on the condition that an undertaking, executed by the plaintiff and an appropriate surety in the sum of \$100.00 be filed to make good such damages as may be occasioned by the Defendant, not to exceed said sums as may be suffered by a Defendant who is found to be wrongfully restrained.

Filing of the bond herewith required is noted by this court as having occurred by the time of issuance of this order on the same day.

The Plaintiff's motion on the application for a preliminary injunction is hereby set to be heard before the Court at \_\_\_\_\_, on \_\_\_\_\_ at \_\_\_\_\_ o'clock. This temporary restraining order shall continue in force for fourteen (14) days from the date it takes effect.

IT IS HEREBY ORDERED that the trial on the action on the merits will advanced and consolidated with the hearing on the application for preliminary injunction.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Judge Presiding



**DECLARATION**

(TEX. CIV. PRAC. &amp; REM. CODE § 132.001)

My name is Elichia Anne Rountree; my birthdate is May 21, 1989; and my address is 5269-B SGT LYTLE AVE, El Paso, TX 79906.

I declare under penalty of perjury that the following statements are true and correct.

1. I have children who attend public school at: Hughey Elementary School, El Paso Independent School District, and G.R.R, age 9, WSR, age 6, WRR, age 6 and E.L.R, age 4.

2. I have experience with the way that my school's mask policy has been enforced, including: Hughey Elementary School is enforcing a mask mandate. If students do not comply, they are subjected to disciplinary action, including, referral, in school suspension and eventually alternative learning center. Students that are medically exempt are being forced to use partitions and being segregated from their peers.

3. The above-described policy or action is damaging to me and my child because: On August 23, 2021, I was approached by the principal, Ms. Lilia Aguilera, regarding my children not wearing masks. Prior to this date, we had been in contact several times regarding my children and were in agreeance the decision on mask policies for my children was my choice. On August 23, 2021, I was asked if I would be willing to mask my four children to follow the new mask mandate put in place by the city and the district. I declined. I reminded Ms. Aguilera that W.S.R, W.R.R and E.L.R all have speech and language disabilities and are medically exempt. In addition to speech and

language disability, W.R.R and E.L.R have extensive trauma from their biological family and wearing a mask can cause past trauma to resurface. I stated that G.R.R expresses she gets headaches and feels as though she can't breathe when she wears a mask and it causes anxiety. Ms. Aguilera was in agreeance that all my children would remain unmasked. At approximately 6:30pm, August 23,2021, I received a phone call from Ms. Aguilera that she was being accused from a teacher of favoritism and for this reason G.R.R could face disciplinary action if she did not comply to wearing a face covering. She also stated that she filed exemptions for W.S.R, W.R.R and E.L.R with the district for their medical exemption. August 24, 2021, I dropped my children off, Ms. Aguilera and I spoke again regarding the mandate, and I stated that if and when G.R.R receives disciplinary action, to contact me immediately. I also sent a message on Class DoJo to G.R.R's teacher, Ms. Sonia Romero. The message stated, "Reminder. No Mask for G.R.R. If any issues, please sent to admin." At approximately 12:30pm, I received a call from the principal's secretary that G.R.R was in the office and her referral was ready. I immediately went to the school and had a meeting with the principal and G.R.R (meeting is recorded). The referral stated, "Student was asked to comply with District and school policy to wear a face mask on campus. Student indicated she has chosen to not wear a mask. In addition, a plexiglass divider was offered for her desk area. G.R.R indicated she did not want to use the divider because she could not see the board." After further conversation, and requesting Ms. Romero to join the meeting, the referral was changed to, " After further clarification, it was

clarified that student was asked to comply with District and school policy to wear a face mask on campus. Student indicated she has chosen to not wear a mask because she cannot breathe. In addition, a plexiglass divider was offered yesterday for her desk area in place of a face mask as per admin approval. G.R.R indicated she could not see the board through the plexiglass. Ms. Romero, the teacher; cleaned the plexiglass for her. Today, Ms. Romero told G.R.R to put up the plexiglass divider on her desk. Student did not. Another student told Ms. Romero G.R.R had not put up the divider. Then Ms. Romero told G.R.R to put up the divider again. G.R.R said, “No, ma’am, my mom said I don’t have to use the divider.” Ms. Romero responded by telling the student, “You are in my class so your mom doesn’t make choices while in my classroom.” During the meeting, it was determined that Ella cannot see the board while using the divider. Ms. Romero never attempted to problem solve to come up with another solution. She didn’t follow my request to immediately send G.R.R to admin. Instead, she scolded, embarrassed, and allowed other students to get involved in her disciplinary action before sending her to lunch. G.R.R went to lunch and was so upset that she went to Ms. Aguilera after to discuss what happen and Ms. Aguilera responded by writing the referral (first portion) per Ms. Romero’s request. It wasn’t until I arrived that it was discovered why G.R.R refused. G.R.R is traumatized by this event and has not returned to school since. She feels as though she was targeted. We will be withdrawing G.R.R from Hughey Elementary school and homeschooling her. In addition to the events that happened with G.R.R, I received a message from E.L.R’s teacher, Mr. Michael Malone

at 2:32pm. “Hi Mrs. Rountree, E.L.R had a rough afternoon today. She wouldn’t rest during rest time, going under the table, making noise, and grabbing at things. Once I put her on red, she fell asleep, which is fine. In centers she wouldn’t clean up right with her team and even stood on my chair. She was also taking out extra toys when told not to. I put her in time out and she accepted it.” My daughter has had some negative behavior (trauma resurfacing), but this seemed excessive. I immediately knew something and to of happened at school to trigger this behavior. E.L.R acts out when she feels triggered or unsafe due to her past trauma. When I arrived home from picking up my other children, E.L.R, was distraught. When trying to understand why she was so upset she said, “teacher made me put a mask on my mouth.” I looked in her bag and found the mask. I immediately called the school and requested an emergency meeting with the Ms. Aguilera, Mr. Garcia (vice principal) and her teacher, Mr. Michael Malone. At the meeting, it was determined Emelia was given a mask at the beginning of the day even though she is medically exempt from wearing a mask. During the meeting, Mr. Malone stated he would no longer require a mask; however, E.L.R would be segregated from her peers and only allowed to be with one other child with a partition between them at all times because she won’t be masked. He was firm in his choice and refused to understand that was discrimination against my child and admitted that segregation was directive of the teacher union, and he was “going to do what he wanted in his classroom because he didn’t want to get sued by other parents for my child’s special circumstance on not wearing a mask”. Mr. Malone then left the room making it well known she

would be segregated starting August 25, 2021. Ms. Aguilera and Mr. Garcia at no point interjected stating they would not allow segregation. They were going to allow this teacher to discriminate against my child. I requested my daughter be moved to a new teacher, Ms. Aguilera and Mr. Garcia accommodated my request. After 3 weeks of school, getting used a routine, attempting to bond with her teachers, my daughter's routine was interrupted to hopefully avoid further discrimination and she was placed in a new classroom. I have had to make appointments with behavioral health to help her adjust to these changes. I have in writing from another teacher that segregation is being suggested for those that cannot mask.

By signing this declaration, I am giving permission for it to be used in litigation concerning masks in any Texas case.

Executed in El Paso County, State of Texas on August 28, 2021.

signed: Elichia Rountree

printed name: Elichia Rountree

**DECLARATION**  
(TEX. CIV. PRAC. & REM. CODE § 132.001)

My name is Cassandra Bebla; my birthdate is March 7, 1982 ; and my address is 825 Dulce Tierra Dr. El Paso, Texas 79912

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child(ren) who attends public school at: Hornedo Middle School and Coronado Highschool, El Paso Independent School District. Children: Sophia Chau age 16; Bianca Chau age 13; Maverick Chau age 11.
2. I have experience with the way that my school's mask policy was enforced in the past, including: isolation of child, punishment, in school suspension, and denial of education.
3. The above-described policy or action is damaging to me and my child because: they have trouble breathing, anxiety, lack of interest in school, and difficulty learning due to the mask.
4. My child's school is requiring face coverings of students although there is no specification for the face covering: my children have been punished for using their Right to Refuse wearing a mask. For providing scientific data supporting our reasons for declining to wear a mask. They have been sent to ISS multiple times, been sent home, and been isolated in school for declining to wear a mask.
5. Executed in El Paso County, State of Texas on September 10, 2021.

**DECLARATION**

(TEX. CIV. PRAC. & REM. CODE § 132.001)

My name is Dana Garner; my birthdate is January 25th, 1994 ; and my address is 5255 B Hauck street, El Paso, TX 79906

I declare under penalty of perjury that the following statements are true and correct.

1. I have a child who attends public school at: Hughey Elementary El Paso, age 6, kindergarten, RG and age 9, 4th grade,, AG.

2. I have experience with the way that my school's mask policy was enforced in the past, including: we were contacted by the principal, Lilia Aguilera, August 24th at 5:41 pm, after sending my 2 children without a mask, stating that the next day (August 25) if my children were still refusing to wear masks that my 9 year old would be in ISS all day and my 6 year old would be written up for insubordination of the schools code of conduct. I expressed that not every student will have the same traumas and health reasoning and it was not a schools requirement for us to unfold our entire life for them. She told us we could file for a 504 plan with a doctor's note and my kids could go without a mask but then be placed in the back of the class with a plexiglass divider around them. I told her that I was not comfortable with either of those options and that I would be keeping them home the rest of the week.

3. The above-described policy or action is damaging to me and my child because:

she planned to segregate my children for not wearing a mask or place them in an isolated room for the day for failure to comply. My 6 year old has speech delays and struggles and had already expressed difficulty with class direction and learning with lack of being able to hear teacher. My 9 year old year old has ADD and sensory processing, with wearing a mask she would not be able to focus much less be able to keep a mask on her face for 8 hours a day.

4. My child's school is requiring face coverings of students although there is no specification for the face covering. The last day my kids attended hughey, my 6 year old walked out of the school with a "fun mask" on. The principal had offered them in the front office to children without masks to make them feel more "comfortable". The principal, Lilia Aguilera, and I had spoke previously before their last day and my stance on wearing the masks. She had approached my son after gym class (approximately 10 am on the 24th) and told him he needed to wear a mask to participate in class. During our phone call later that day she told me my son willingly choose to take a mask at drop off and I told her that was a lie as I walked him to the front myself and watched as he walked to class and then told her what my son told me. She had nothing more to say about that besides she can get him a 504 plan to keep him in school.

5. Executed in Dana Garner County, State of Texas on September 1st, 2021.



signed: *Dana Garner*

\_\_\_\_\_

printed name: Dana Garner

**MINUTES OF BOARD OF TRUSTEES MEETING  
EL PASO INDEPENDENT SCHOOL DISTRICT  
AUGUST 17, 2021  
5:00 P.M.**

**Present:** Mr. Al Velarde, President  
Mr. Daniel Call, Vice President  
Ms. Leah Hanany, Secretary  
Dr. Josh Acevedo, Member  
Ms. Isabel Hernandez, Member  
Mr. Israel Irrobali, Member  
Mr. Freddy Khlayel-Avalos, Member  
Mr. Vince Sheffield, Interim Superintendent

**Others:** Ms. Cezy Collins, General Counsel

**1. Call to Order**

The meeting was called to order at 5:26 p.m. by Board President Velarde.

**2. Pledges of Allegiance**

Board President Velarde led the Pledges of Allegiance.

**3. Moment of Silence**

A moment of silence was observed in recognition to Mr. Joshua Tovar, son of an EPISD employee.

**4. Public Forum**

Due to the number of speakers, Board President Velarde asked the Board to approve the suspension of the rules to allow the time for public speaking to decrease to one minute. A roll-call vote was taken with Trustees Acevedo, Hernandez, Irrobali, and Velarde voting in favor of the motion and Trustees Call, Hanany, and Khlayel-Avalos voting against. The motion carried (4 Trustees in favor and 3 Trustees against).

Board Secretary Hanany read the protocol to be observed during Public Forum. The following individuals requested to address the Board:

Mr. Ross Moore, President of the El Paso American Federation of Teachers (AFT), addressed the Board requesting that masks be mandated in schools to ensure the safety of students.

Ms. Shelly Morkovsky, parent, addressed the Board expressing her concerns with the District's 10-day quarantine protocol.

Ms. Margaret Gallardo, Vice President of the El Paso Teacher's Association, addressed the Board expressing concerns with the District's 10-day quarantine protocol.

Ms. McKenna Darden, parent, addressed the Board expressing her concerns with the 10-day quarantine protocol.

Ms. Sheri Reiter, Speech Pathologist, addressed the Board expressing her support for a school face mask mandate.

Mr. Michael Reese, teacher, addressed the Board thanking them for the essential public service that they provide.

Mr. Todd Roberts was not present when called upon.

Mr. Chris Anthony was not present when called upon.

**5. Action Item**

**A. Discuss and Take Appropriate Action on Legal Options and Possible Litigation Regarding Executive Order by the Governor of the State of Texas GA-38 Relating to the Continued Response to the COVID-19 Disaster Issued on July 29, 2021**

The following individuals requested to address the Board:

Ms. Audriana Apodaca, pediatric nurse practitioner, addressed the Board expressing her support for a face mask mandate.

Mr. Lepoldo Artalejo, pharmacist, addressed the Board requesting that face masks be voluntary and not mandatory.

Ms. Aaron Bill, parent, addressed the Board expressing her support for a temporary face mask mandate.

Ms. Samantha Campos, parent, addressed the Board requesting that parents be given the choice of sending their children with or without face masks to school.

Mr. Clint Chamales, parent, addressed the Board requesting that parents be given the choice of sending their children with or without face masks to school.

Mr. Kevin Cooper, community member, addressed the Board expressing his concerns on the effects of face masks on children.

Ms. Cady Erickson, parent, addressed the Board expressing her support for a face mask mandate.

Ms. Ashley Farr, teacher and parent, addressed the Board requesting that parents be given the choice of sending their children with or without face masks to school.

Ms. Kathryn Garcia, parent, addressed the Board urging that litigation be pursued against the state and expressed her support for a face mask mandate.

Dr. Isela Ybarra, pediatrician and parent, addressed the Board urging that litigation against the state be pursued and expressed her support for a face mask mandate.

Dr. Kristyn Ingram, pediatric anesthesiologist and parent, addressed the Board requesting that face masks be mandated in schools to ensure the safety of students.

Ms. Kendall Jessup, parent, addressed the Board expressing her concerns for a face mask mandate.

Dr. Prashant Joshi, pediatric ICU physician and parent, addressed the Board urging that litigation be pursued against the state and expressed his support for a face mask mandate.

Dr. Shauna Goldman, physician, addressed the Board urging that litigation be pursued and expressed her support for a face mask mandate.

Ms. Susan Lee, community member, addressed the Board expressing her concerns for a face mask mandate.

Ms. Edith Lara, parent, addressed the Board expressing her concerns on the effects of face masks on children.

Mr. Jason McDaniel, healthcare professional, addressed the Board expressing his concerns for a face mask mandate.

Ms. Cynthia Marentes, parent, addressed the Board requesting that face masks be mandated in schools to ensure the safety of students.

Ms. Jacqueline Martinez, teacher, addressed the Board expressing her support for a face mask mandate.

## Exhibit 21

Ms. Katherine Martinez, Special Education teacher, addressed the Board expressing her concerns on the effects of face masks on children.

Ana Mena, pediatric nurse practitioner, addressed the Board urging that litigation be pursued against the state and expressed his support for a face mask mandate.

Mr. Xavier Miranda, community member, addressed the Board urging that face masks be mandated in schools to ensure the safety of students.

Ms. Alofagia Oney, parent, addressed the Board expressing his concerns for a face mask mandate.

Mr. David Parish, parent, addressed the Board urging that face masks be mandated in schools to ensure the safety of students.

Ms. Carmen Patterson, parent, addressed the Board requesting that parents be given the choice of sending their children with or without face masks to school.

Ms. Elinora Price, parent, addressed the Board expressing her support for a face mask mandate.

Ms. Cecilia Ramos was not present when called upon.

Mr. Michael Randell was not present when called upon.

Ms. Jocelyn Roberts, parent, addressed the Board requesting that parents be given the choice of sending their children with or without face masks to school.

Ms. Elichia Rountree, parent, addressed the Board expressing her concerns on the emotional effects of face masks on children.

Dr. Vanessa Ruiz, pediatrician and parent, addressed the Board urging that litigation be pursued and expressed his support for a face mask mandate.

Ms. Lily Sanchez was not present when called upon.

Dr. Manuel Valenzuela, pediatrician, addressed the Board expressed his support for a face mask mandate.

Ms. Bertha Vasquez, surgical nurse practitioner, addressed the Board expressing her concerns of opposing a face mask mandate.

Ms. Angie Armendariz, parent, addressed the Board urging that a face mask mandate be placed to ensure the safety of the children.

Ms. Adriana Cadena, parent, addressed the Board expressing her support for a face mask mandate.

Ms. Betty Camargo, parent, addressed the Board urging that litigation be pursued and expressed her support for a face mask mandate.

Ms. Dulce Carlos, parent, addressed the Board urging that face masks be mandated in schools to ensure the safety of students.

Ms. Irma Cruz, from the Board Network for Human Rights, addressed the Board requesting that face masks be mandated in schools to ensure the safety of students.

Mr. Fernando Garcia, Executive Director of the Board Network for Human Rights, addressed the Board requesting that litigation be pursued against the state and expressed his support for a face mask mandate.

Ms. Veronica Frescas, from the Board Network for Human Rights, addressed the Board expressing her support for a face mask mandate.

Ms. Rosalia Gonzales was not present when called upon.

Ms. Susana Herrera, parent, addressed the Board requesting that face masks be mandated in schools to ensure the safety of students.

Ms. Kimberly Joshi, physician assistant and parent, addressed the Board requesting that face masks be mandated in schools to ensure the safety of students.

Ms. Beatriz Lozano, grandparent, addressed the Board expressing her support for a face mask mandate.

Ms. Claudia Ramirez was not present when called upon.

Ms. Susy Salam was not present when called upon.

Mr. Marco Silva, from the Board Network for Human Rights, addressed the Board expressing his concerns for the safety of children.

Ms. Kathleen Staudt, addressed the Board expressing her support for a face mask mandate.

Ms. Irma Zacarias was not present when called upon.

Mr. Carlos Marentes, Director of the Border Agricultural Workers Project, addressed the Board expressing his support for a face mask mandate.

Ms. Sara Renteria, teacher, addressed the Board expressing her support for a face mask mandate.

Ms. Chimene Mark, parent, addressed the Board expressing her concerns with a face mask mandate.

Mr. David Pena, community member, addressed the Board expressing his concerns with a face mask mandate.

Ms. Judy Blake was not present when called upon.

### **MEETING RECESSED**

The meeting was recessed at 6:59 p.m.

### **MEETING RESUMED**

The meeting resumed at 7:08 p.m.

Discussion ensued regarding the protocols needed to keep students, staff, and community safe, along with the possibility of legal consequences for not following the law. In response to Trustee Hanany's inquiry, Ms. Cezy Collins, General Counsel, confirmed that the Board has the legal responsibility of keeping the students safe.

It was moved by Trustee Acevedo and seconded by Trustee Hanany, that the El Paso Independent School District follow the local health authority mandate, unless and until ruled by a court of competent jurisdiction, and authorize, protect, and direct Interim Superintendent to make masks mandatory inside of EPISD facilities and vehicles, as of Thursday, August 19, 2021, at 8:00 a.m., and authorize O'Hanlon, Demerath, and Castillo to add EPISD as a plaintiff in the pending lawsuit against Governor Abbott, Cause No. D-1-GN-21-003897 La Joya I.S.D., et al. v. Greg Abbott, pending district court in Travis County, Texas. A roll-call vote was taken with Trustees Acevedo, Hanany, Hernandez, Irrobali, Khlayel-Avalos and Velarde in favor of the motion, and Trustee Call voting against. The motion carried (6 Trustees in favor of the motion and 1 Trustee against).

**6. Consent Agenda**

It was moved by Trustee Khlayel-Avalos and seconded by Trustee Irrobali, that the Consent Agenda items be approved as listed, including all recommended vendors, for all amounts indicated, with the exception of Items 6.B.3, 6.G, 6.T, 6.U, 6.V.1, 6.V.11, and 6.V.12. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

- A. Approval of Minutes
  - 1. June 15, 2021, Special Board of Trustees Meeting
  - 2. June 15, 2021, Board of Trustees Meeting
  - 3. June 29, 2021, Special Board of Trustees Meeting
  - 4. June 29, 2021, Special Board of Trustees Meeting (10 a.m.)
  - 5. July 14, 2021, Special Board of Trustees Meeting
  - 6. August 3, 2021, Audit Committee Meeting
- B. Approval of Proposed Adoption and Revisions to Board Policy
  - 1. Proposed Revisions to Board Policy AE (Local): Educational Philosophy
  - 2. Proposed Deletion of Board Policy AE (Exhibit): Educational Philosophy
- C. Approval of Budget Amendment
  - 1. Approval of Budget Amendment to Allocate Funds for Supplies & Equipment, Technology and Contracted Services Related to CTE Program and School Safety Allotment (General Operating Fund - \$641,033.00)
  - 2. Approval of Budget Amendment to Increase Revenue and Expenses Due to Corona Relief Funds Reimbursement (Unreserved Fund Balance - \$2,921,952.00)
  - 3. Approval of Budget Amendment to Roll-Forward Funding from Fiscal Year 2021 (General Operating Fund - \$28,970,561.00 and Maintenance Tax Note Funds - \$16,398,392.00)
- D. Approval of Revisions to 2021-2022 Student Code of Conduct
- E. Approval of Revisions to 2021-2022 Miscellaneous Pay Rate Listing
- F. Approval of Contract between Ysleta Independent School District (Acting as Lead Organization for Far West Adult Education Consortium) and El Paso Independent School District (Acting as Service Provider) as Part of Texas Workforce Commission Adult Educational and Literacy Grant (Texas Workforce Commission Grant Funds - \$812,470.00) - the Board approved the award of \$812,470.00 from the Texas Workforce Commission, through the Far West Adult Education Consortium, and authorized the Interim Superintendent to approve the contract, as presented, and any additional amendments that do not affect the current budget year.
- H. Approval of Dual Credit Partnership Agreement between El Paso Independent School District and El Paso County Community College District (Local Funds - \$10,000.00) – the board approved the Dual Credit Partnership Agreement between the El Paso Independent School District and El Paso Community College District to facilitate the provision of dual credit college courses, in an amount not to exceed \$10,000.00, as presented.
- I. Approval of Internship Affiliation Agreement between El Paso Independent School District and Lamar University
- J. Approval of Internship Affiliation Agreement between El Paso Independent School District and Maricopa County Community College District
- K. Approval of Internship Affiliation Agreement between El Paso Independent School District and University of Denver and its Graduate School of Social Work
- L. Approval of Internship Affiliation Agreement between El Paso Independent School District and Eastern New Mexico University

## Exhibit 21

- M. Approval of Legal Service Retainer Agreement between El Paso Independent School District and Walsh Gallegos Trevino Kyle & Robinson P.C. for Special Education and Other Matters (Operating Funds - \$1,000.00) – the Board approved the execution of the engagement letter with the law firm of Walsh Gallegos Trevino Kyle & Robinson P.C., for the period of July 1, 2021, through June 30, 2022, as presented.
- N. Annual Report on Management Fees Under Purchasing Contracts
- O. Facilities and Construction Quarterly Reports to Board of Trustees
- P. Internal Audit Annual Report to the Board of Trustees
- Q. Approval of Change Order No. 02 for 6531 Boeing Building Structures Demolition, TXMAS-18-00CORP10, Project No. 21.673, to Border Demolition and Environmental, Inc., for a Non-Compensatory Time Extension of Forty Two (42) Calendar Days
- R. Approval of Change Order No. 003 for General Douglas MacArthur PK-8 (MacArthur/Bonham Consolidation), CSP No. 19-023, Project No. 17.615, to Lloyd Hamilton Construction, Inc., for a Non-Compensatory Time Extension of Ten (10) Calendar Days
- S. Approval of Change Order No. 004 for Charles Q. Murphree PK-8 (New Morehead Middle School and Renovations to Existing Johnson Elementary School), CSP No. 19-048, Project No. 17.616, to Dantex General Contractors, Inc., for New Roof Recovery System at Existing Johnson Areas "A" and "B" (2016 Bond Funds - \$70,219.15)
- V. Purchases Requiring Board Approval
  - 2. Approval to Purchase SAT Suite of Assessments from College Board, for Fiscal Year 2021-2022, Utilizing Socorro Independent School District Contract #E1950E, College Preparatory Materials and Services (Budgeted Local Funds - Not to Exceed \$439,662.00)
  - 3. Approval of Fifth Amendment to Software License and Support Services Agreement, and Maintenance for TEAMS Student and Business Systems from Frontline Technologies Group, LLC, dba Frontline Education, Utilizing Interlocal Cooperative Agreement with Educational Service Center (ESC) Region 19 Allied States Cooperative (ASC) RFP #17-7247 (Budgeted Local Funds - \$854,720.69)
  - 4. Approval of Third Amendment to Vendor Contract and Expenditures for Zendesk Work Order Ticketing System from SHI Government Solutions, Inc., Utilizing Omnia Partners National Intergovernmental Purchasing Alliance (NIPA) Contract #2018011-02, Information Technology Solutions & Services (Budgeted Local Funds - \$148,321.30)
  - 5. Approval of Expenditures for OneLogin Software Licenses from SHI Government Solutions, Inc., Utilizing State of Texas Department of Information Resources (DIR) Contract #TSO-3984 (Budgeted Local Funds - \$196,320.38)
  - 6. Approval to Purchase Subscription Cloud Based Internet Filtering Services from Carahsoft Technology Corporation, Utilizing State of Texas Department of Information Resources (DIR) Contract Number DIR-TSO-4288 (Budgeted Local Funds - \$388,458.00)
  - 7. First Option to Extend Educators Legal Liability Insurance RFP #20-044 (Administrative Recommendation: Educators Legal Liability Insurance-National Union Fire Insurance Company of Pittsburgh, Pennsylvania, a Member of the AIG Group of Companies, Through Local Representative, USI Southwest, Inc.) (Budgeted Local Funds - \$150,890.00)
  - 8. First Option to Extend Property Insurance RFP #20-030 (Administrative Recommendation: Property Insurance to Ace Westchester Insurance Company; and Boiler & Machinery/Equipment Breakdown to Continental Casualty Insurance Company, Through Local Representative, USI Southwest, Inc.) (Budgeted Local Funds - \$1,622,184.77)

9. Approval of Expenditures and Master Vendor Contract for Uniform Rental for Custodial Operations; Maintenance, Buildings and Grounds; Transportation Services; Food and Nutrition Services; and Athletics, Utilizing Sourcewell Cooperative Contract #040920-UFC, Employee Uniforms (Administration Recommendation: UniFirst Corporation) (Budgeted Local and Federal Funds: Not to exceed \$158,200.00)
10. Approval to Purchase Anti-Microbial Chemical Products from Brady Industries of Texas, Utilizing Region 19 ESC Allied States Cooperative Contract RFP #21-7372, Custodial and Support Service Requirements and Related (Budgeted Local Funds - \$300,000.00)

**ITEMS REMOVED FROM CONSENT AGENDA FOR SEPARATE VOTE**

**6.B.3. Proposed Revisions to Board Policy DEC (Local): Compensation and Benefits; Leaves and Absences**

The following individual requested to address the Board:

Mr. Ross Moore addressed the Board requesting that this policy include every El Paso Independent School District employee, and not just peace officers, as everyone is exposed to the virus.

Ms. Rosa Ramos, Executive Director of Employee Relations, explained that these changes were recommended by the Texas Association of School Boards (TASB) to address House Bill and Senate Bill 1359. Ms. Collins clarified that these changes place the District in compliance with the two laws that just passed. Ms. Patricia Cortez, Assistant Superintendent of Human Resources, reported that her department would have to look further into including every employee, as there would be a budgetary impact. In response to Ms. Hanany's inquiry, Interim Superintendent Sheffield noted that administration is not allowed to ask individuals for their vaccination status.

It was moved by Trustee Irrobali and seconded by Trustee Acevedo, that the Board adopt the proposed revisions to Board Policy DEC (Local): Compensation and Benefits; Leaves and Absences, and that administration provides an update in two months on research status on how to include all staff within this policy. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

**6.G. Approval of Second Memorandum of Understanding between El Paso County Community College District, The University of Texas at El Paso and El Paso Area Independent School Districts for Participation in El Paso College Readiness Initiative**

Trustee Acevedo commented as to a potential conflict of interest and recused himself from participating in the discussion and the vote for this item.

It was moved by Trustee Hernandez and seconded by Trustee Hanany, that the Board approve the Second Memorandum of Understanding for El Paso College Readiness Initiative between El Paso County Community College District, The University of Texas at El Paso and the El Paso Area Independent School Districts to continue participation in the College Readiness Institute, as presented. A roll-call vote was taken with Trustees Call, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion and Trustee Acevedo abstaining from the vote. The motion carried (6 Trustees in favor of the motion and 1 Trustee abstaining).

**6.T. Approval of Change Order No. 005 for Austin HS – Additions and Renovations, RFP/RFQ No. 18-036, Project No. 17.622, to Arrow Building Corp., for Procurement of Three (3) Stair Lifts to Provide Accessibility Between New Tech Building (D) and Main Campus Building in the Amount of \$82,376.20, and Approval of a Non-Compensatory Time Extension of One Hundred and Eleven (111) Calendar Days Due to Material Lead Time and Installation (2016 Bond Funds - \$82,376.20)**

Trustee Irrobali commented as to a potential conflict of interest and recused himself from participating in the vote for this item. In response to Trustee Acevedo's inquiry, Ms. Irene Ramirez, Executive Director of Facilities and Construction, confirmed that stairlifts will be placed at Austin High School to make the building accessible. She reported that the final substantial completion date for this project would be December 15, 2021.



It was moved by Trustee Acevedo and seconded by Trustee Khlayel-Avalos, that the Board approve Change Order No. 005 to Arrow Building Corp., for the procurement of three (3) Stair Lifts for \$82,376.20, from the existing furniture, fixtures, and equipment project budget, and approve a non-compensatory time extension of one hundred and eleven (111) calendar days for Austin HS – Additions and Renovations, RFP/RFQ No. 18-036, Project No. 17.622. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Khlayel-Avalos, and Velarde voting in favor of the motion and Trustee Irrobali abstaining from the vote. The motion carried (6 Trustees in favor of the motion and 1 Trustee abstaining).

**6.U. Approval of Change Order No. 006 for Austin HS Additions and Renovations, RFP/RFQ No. 18-036, Project No. 17.622, to Arrow Building Corp., for Procurement of Theater Lighting and Control Equipment for New Performing Arts Center Building in the Amount of \$316,020.71, and Approval of a Non-Compensatory Time Extension of One Hundred and Thirty-Nine (139) Calendar Days Due to Material Lead Time and Installation (2016 Bond Funds - \$316,020.71)**

Trustee Irrobali commented as to a potential conflict of interest and recused himself from participating in the vote for this item.

Ms. Ramirez clarified that this change order was strictly for theater and lightning equipment. She shared that this project was originally budgeted from the existing Furniture, Fixtures, and equipment project budget; however, since it was a structural element to the building, administration decided that it was best to procure through the contractor so warranties could stay in place. Additionally, she reported that the substantial completion date will be December 15, 2021.

It was moved by Trustee Acevedo and seconded by Trustee Khlayel-Avalos, that the Board approve Change Order No. 006 for the procurement of theater lighting and control equipment for the new Performing Arts Center building for \$316,020.71, from the existing furniture, fixtures and equipment project budget, and a non-compensatory time extension of one hundred and thirty-nine (139) calendar days, except if change order #5 was approved, the time extension is for twenty-eight (28) calendar days, for Austin HS Additions and Renovations, RFP/RFQ No. 18-036, Project No. 17.622, to Arrow Building Corp. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Khlayel-Avalos, and Velarde voting in favor of the motion and Trustee Irrobali abstaining from the vote. The motion carried (6 Trustees in favor of the motion and 1 Trustee abstaining).

**6.V.1. Approval of Expenditures for Online Social Emotional Learning Platform from Panorama Education, Inc. for Fiscal Year 2021-2022, Utilizing Technology Hardware, Software and Services, RFP #18/056KD-46 from Choice Partners (Budgeted State Compensatory Education Funds - \$106,325.00)**

Mr. Ray Lozano, Executive Director of Student and Family Empowerment, reported that there is a documented needs assessment for this program and was submitted as part of the procurement process. He shared that Social Emotional Learning (SEL) curriculums have been implemented on all levels, elementary through high school, as requested by the Superintendent Student Advisory Council. Through the use of this program, administration can track the students' social emotional competency over time. Trustee Khlayel-Avalos requested that the needs assessment report be included in Trustee's packets from now on.

It was moved by Trustee Khlayel-Avalos and seconded by Trustee Irrobali, that the Board approve the expenditures to Panorama Education, Inc. utilizing Choice Partners (CP) Cooperative Contract# 18/056KD-46, Contracted Services, Consulting, Staff Development & Related, in an estimated amount of \$106,325.00 (Budgeted State Compensatory Education Funds), as presented. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

**6.V.11. Approval to Purchase Custodial Products and Support Service Requirements & Related, Utilizing Region 19 Education Service Center (ESC) Allied States Cooperative Contract RFP #21-7392 (Administration Recommendation: Acrylic Source+, Brady Industries of Texas LLC (Brady Companies LLC), ChemGiant, LLC, Ecolab Inc., Kindle Fischer Specialty Chemicals LLC, Laun-Dry Supply Co. Inc. (LD Supply, LLC), MasterServ Inc. (AAA MasterServ Inc.), Pyramid School Products (Pyramid Paper Company), Southwestern Mill Distributors, Inc., and Spectrum Paper Co., Inc.) (Budgeted Local Funds - \$2,000,000.00)**

Trustee Khlayel-Avalos requested that items 6.V.11 and 6.V.12 be discussed together. Board President Velarde confirmed that these items were “buckets”. It was requested that a detailed estimated breakdown be provided to the Board. Ms. Martha Aguirre, Executive Director of Budget and External Financial Management, reported that the estimate presented was created based on previous year expenses. Additionally, she shared that if items 6.V.11 and 6.V.12 were tabled to a future Board meeting, purchases across the District would have to be stopped. Ms. Aguirre confirmed that these funds would be used only for supplies and not contracted services. Trustee Acevedo suggested that the agenda template be redrafted to identify “buckets” as individual items.

It was moved by Trustee Khlayel-Avalos and seconded by Trustee Call, that the Board approve the purchase of custodial products and supplies, as awarded by the Region 19 ESC Purchasing Cooperative under RFP #21-7392, Custodial and Support Service Requirements and Related from: Acrylic Source+, Brady Industries of Texas LLC (Brady Companies LLC), ChemGiant, LLC, Ecolab Inc., Kindle Fischer Specialty Chemicals LLC, Laun-Dry Supply Co. Inc. (LD Supply, LLC), MasterServ Inc. (AAA MasterServ Inc.), Pyramid School Products (Pyramid Paper Company), Southwestern Mill Distributors, Inc., and Spectrum Paper Co., in an estimated total annual amount of \$2,000,000.00. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irroballi, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

**6.V.12. Approval to Purchase Office Supplies Utilizing Interlocal Cooperative Contract Vendors Including: Office Depot, Utilizing Omnia Partners Contract #R190502-Educational School Supplies; El Paso Office Products, Utilizing Education Service Center (ESC) Region 19 Allied States Cooperative (ASC) Contract #20-7373-Classroom Curriculum, Supplies, Equipment, and Related; Staples Contract & Commercial, dba Staples Advantage, Utilizing Sourcewell Cooperative Contract #012320-SCC-Office Supply Catalog Solutions; Pencil Cup Office Products, Inc., Utilizing Education Service Center (ESC) Region 19 Allied States Cooperative (ASC) Contract #20-7373-Classroom Curriculum, Supplies, Equipment, and Related; L & B Group, LLC, dba Precision Imaging, Utilizing The Interlocal Purchasing System (TIPS) Contract #210401; and School Specialty, Inc., Utilizing Omnia Partners Contract #R190503-Educational School Supplies (Budgeted Various Funds - \$1,500,000.00)**

It was moved by Trustee Call and seconded by Trustee Hernandez, that the Board approve the purchase of office supplies utilizing Interlocal Cooperative Contract Vendors including: Office Depot, utilizing Omnia Partners Contract #R190502-Educational School Supplies; El Paso Office Products, utilizing Education Service Center (ESC) Region 19 Allied States Cooperative (ASC) Contract #20-7373-Classroom Curriculum, Supplies, Equipment, and Related; Staples Contract & Commercial, dba Staples Advantage, utilizing Sourcewell Cooperative Contract #012320-SCC-Office Supply Catalog Solutions; Pencil Cup Office Products, Inc., utilizing Education Service Center (ESC) Region 19 Allied States Cooperative (ASC) Contract #20-7373-Classroom Curriculum, Supplies, Equipment, and Related; L & B Group, LLC, dba Precision Imaging, utilizing The Interlocal Purchasing System (TIPS) Contract #210401; and School Specialty, Inc., utilizing Omnia Partners Contract #R190503-Educational School Supplies, on an as needed basis, in the estimated annual amount of \$1,500,000.00. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irroballi, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

**7. Public Meeting****A. Public Meeting to Discuss the Proposed 2021-2022 District Tax Rate**

Mr. Walt Byers, Treasurer, explained that the purpose of the Public Meeting is to inform the public about the proposed tax rate of \$1.35420, which consists of \$1.0517 for Maintenance and Operations (M&O) and \$0.3025 for Interest and Sinking (I&S) Fund for Tax Year 2021. He shared the changes from the previous year and the proposed regional tax rates. Additionally, Mr. Byers reported on the factors in setting the tax rate for the 2020-2021 fiscal year to include the following: property values, House Bill 3, 2016 Bond Election, Senate Bill 1536, and a reduction in state debt funding. He explained that Senate Bill 1531 now prohibits districts from transferring from the General Fund to the Debt Service Fund. Ms. Aguirre alongside Mr. Byers explained the reason behind the fluctuation of bond debt.

Board President Velarde opened the floor for public input. The following individuals requested to address the Board:

Ms. Robin Cooper, realtor, addressed the Board expressing her concerns for the increase in tax payments.

Mr. Malcolm McGreggor, apartment manager, addressed the Board expressing his concerns for the use of taxpayer's monies.

Mr. James Peinado, community member, addressed the Board expressing his concerns for the use of taxpayer's monies and requests that the Board oppose a tax increase.

**8. Action Items****A. Discuss and Take Appropriate Action on a Resolution Adopting the 2021-2022 Property Tax Rate**

Trustee Hanany requested a quarterly report where opportunities are identified to decrease debt throughout the year. Ms. Aguirre explained that due to loss of enrollment the District has been forced to decrease budgets and must find ways to pay back debt. Discussion ensued regarding a strategic plan to prioritize declining enrollment.

It was moved by Trustee Call and seconded by Trustee Hanany, that the Board approve that the property tax rate be increased by the adoption of a tax rate of \$1.35420, which is effectively a 3.91 percent increase in the tax rate and adopt the Resolution Adopting a Tax Rate for the El Paso Independent School District at a tax rate of \$1.3542, which is effectively a 3.91 percent increase in the tax rate, which consists of \$1.0517 for Maintenance and Operations (M&O) and \$0.3025 for Interest and Sinking (I&S) Fund, for the Tax Year 2021. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Khlayel-Avalos, and Velarde voting in favor of the motion and Trustee Irrobali voting against. The motion carried (6 Trustees in favor and 1 Trustee against).

**B. Discuss and Take Appropriate Action on Endorsement of Candidate to TASB Board of Directors (Region 19)**

The following individual requested to address the Board:

Ms. Marlene Bullard, president of Tornillo ISD, addressed the Board requesting their endorsement for her to be on the TASB Board of Directors.

Ms. Daniela Galdean, student at Northwest Early College High School, addressed the Board on behalf of Armando Rodriguez, requesting their endorsement for Mr. Rodriguez to be on the Board of Directors.

It was moved by Trustee Khlayel-Avalos and seconded by Trustee Acevedo, that the Board endorse Armando Rodriguez for the TASB Board of Directors. A roll-call vote was taken with Trustees Acevedo, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion and Trustee Call voting against. The motion carried (6 Trustees in favor and 1 Trustee against).

**C. Discuss and Take Appropriate Action on Establishment of Board Committees and Appointment of Board Members to Internal Committees and External Boards of Directors**

Board President Velarde made the following Trustee assignments:

Academics Committee: Chair: Dr. Carla Gonzales; Trustees: Daniel Call, Leah Hanany

Business Services – Chair: Martha Aguirre; Trustees: Daniel Call, Isabel Hernandez

Facilities & Operations – Chair: Col. Alan Wiernicki; Trustees: Josh Acevedo, Freddy Khlayel-Avalos

Audit Committee Meeting – Chair: Josh Acevedo; Trustee: Israel Irrobali

Central Appraisal District - Josh Acevedo, Freddy Khlayel-Avalos

Fort Bliss Collaborative - Isabel Hernandez, Israel Irrobali

Rio Grande Council of Governments - Leah Hanany

EPISD Education Foundation - Al Velarde, Leah Hanany

It was moved by Trustee Acevedo and seconded by Trustee Khlayel-Avalos, that the Board create the following internal committees: Academics Committee, Business Services Committee, Facilities & Operations Committee, Policy Committee, and Audit Committee; further, that the Board appoint representatives to the following external Boards of Directors and approve any resolutions associated with any of these appointments: EPISD/Fort Bliss Collaborative, EPISD Education Foundation Board of Directors, El Paso Central Appraisal District Board of Directors, Rio Grande Council of Governments Board of Directors. A roll-call vote was taken with Trustees Acevedo, Call, Hanany, Hernandez, Irrobali, Khlayel-Avalos, and Velarde voting in favor of the motion. The motion carried unanimously.

**D. Discuss and Take Appropriate Action on Approval of Annual Maximum Class Size Exception Waivers for the 2021-2022 School Year from the Texas Education Agency**

The following individual requested to address the Board:

Ms. Patricia Ortega, parent, addressed the Board expressing her concerns for large class sizes not having enough space to be compliant with the Texas Education Agency recommendations. She requested that classes not be overcrowded during a pandemic.

Mr. Steve Clay, Executive Director of Analytics Strategy Assessment and PEIMS, provided a historical comparison of the student to teacher ratios. He reported on the process of exceeding a 22:1 ratio. Discussion ensued regarding concerns with COVID-19 protocols and CDC recommendations. Dr. Carla Gonzales, Associate Superintendent of Academics and School Leadership, assured the Board that administration went into every classroom and measured to allow for at least three feet of social distancing. Mr. Clay reported that currently 37 classes in Grades K-4 are over the 22:1 ratio and 30 classes in 5<sup>th</sup> grade.

It was moved by Trustee Velarde and seconded by Trustee Call, that the Board approve the submission of Automated Maximum Class Size Exception Waivers to the Texas Education Agency for the period of August 2021 through August 2022 for any Kindergarten through Fourth (4<sup>th</sup>) Grade classes that exceed the 22:1 student to teacher ratio. A roll-call vote was taken with Trustees Call, Hernandez, Irrobali, and Velarde voting in favor of the motion and Trustees Acevedo, Hanany, and Khlayel-Avalos voting against. The motion carried (4 Trustees voting in favor and 3 Trustees voting against).

**9. Reports**

**A. Update on 2021 STAAR District Performance**

Mr. Clay provided a Region 19 comparison of STAAR results by District, subject and grade level. He also provided an overview on the dashboard of STAAR test results created by school feeder-pattern. Discussion ensued regarding the approach of “standard” students getting to the “meets” and “masters” standards.

**B. Update on School Facility Planning and Construction - 2016 Bond Program Update**

Ms. Madeleine Sara, Deputy Program Manager for Jacobs, alongside Mr. Jason Colley, Program Director for Jacobs, provided an overview of the 2016 Bond Program projects managed by Jacobs to include major milestones, project schedules, project updates, and contingency report.

Ms. Sara shared that Jacobs will be recommending that contingency funds be used to replace the entire roof at General Douglas McArthur PK-8 School in the near future. Trustee Irrobali inquired about flooding areas that caused broken concrete at Andress High School. Mr. Alan Wiernicki, Chief Quality Officer, reported that the broken concrete was not yet fixed, but contractors are currently working on a solution. He also shared that a slope was negotiated with the contractor, and he expects it be completed before the end of the football season.

**10. Adjournment**

The meeting was adjourned at 10:21 p.m.

**Date Approved:** September 21, 2021

Cause No. \_\_\_\_\_

<b>EL PASO PARENTS, et al.,</b>	§	<b>IN THE DISTRICT COURT</b>
<i>Plaintiffs,</i>	§	
	§	
<b>v.</b>	§	
	§	<b>_____ DISTRICT</b>
<b>EL PASO INDEP'T</b>	§	
<b>SCHOOL DIST., et al.</b>	§	
<i>Defendants.</i>	§	<b>TARRANT COUNTY, TEXAS</b>

**TEMPORARY RESTRAINING ORDER**

This matter was heard upon Plaintiffs' application for temporary restraining order, *ex parte*. Based on *Plaintiffs' Original Petition, Application for Temporary Restraining Order, and Application for Temporary and Permanent Injunction* ("Application") and evidence attached, the Court GRANTS the Application as follows:

The Court FINDS that the current face-covering rule as described by Plaintiffs threatened by Defendants was made without authority and an illegal act under Gov. Abbott's Executive Order GA-38.

The Court further FINDS that the face-covering rule is an apparent violation of the Texas Constitution and Texas Open Meetings Act which supports injunctive relief.

The Court FINDS that, unless enjoined, Plaintiffs face irreparable harm, including significant and irreparable damage to their right to a healthful environment while they receive a free and appropriate public education free of illegal activity sanctioned by the El Paso Independent School District, which Gov. Abbott's Executive Order GA-38 specifically prohibits.

Additionally, the Court FINDS immediate injunctive intervention is appropriate to prevent further harm and preserve the status quo before the Court can hear and consider the Plaintiff's application for a temporary injunction.

NOW, THEREFORE, good cause appearing, the Court GRANTS the application, and ORDERS the El Paso Independent School District (“Defendant”) and its agents to cease enforcement actions of the face-covering rule described in the Application, for fourteen (14) days pending an evidentiary hearing on Plaintiff’s Application for temporary injunction, as follows:

Defendant shall not deny any student or parent access to El Paso Independent School District facilities based on a face covering, nor act in derogation of any right enjoyed by a person wearing a face covering.

Defendant will ensure that its teachers and all other relevant agents are aware of this Order and is informed that its violation is sanctionable by this Court.

This temporary restraining order is granted on the condition that an undertaking, executed by Plaintiffs and an appropriate surety in the sum of \$100.00 be filed to make good such damages as may be occasioned by the Defendant, not to exceed said sums as may be suffered by a Defendant who is found to be wrongfully restrained.

Filing of the bond herewith required is noted by this court as having occurred by the time of issuance of this order on the same day.

The Plaintiff’s motion on the application for a preliminary injunction is hereby set to be heard before the Court at \_\_\_\_\_, on \_\_\_\_\_ at \_\_\_\_\_ o’clock. This temporary restraining order shall continue in force for fourteen (14) days from the date it takes effect.

IT IS HEREBY ORDERED that the trial on the action on the merits will advanced and consolidated with the hearing on the application for preliminary injunction.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Judge Presiding

United States Court of Appeals  
for the Fifth Circuit

United States Court of Appeals  
Fifth Circuit

**FILED**

December 1, 2021

Lyle W. Cayce  
Clerk

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No. 21-51083

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E.T., *by and through her parents and next friends*; J.R., *by and through her parents and next friends*; S.P., *by and through her parents and next friends*; M.P., *by and through her parents and next friends*; E.S., *by and through her parents and next friends*; H.M., *by and through her parents and next friends*; A.M., *by and through her parents and next friends*,

*Plaintiffs—Appellees,*

*versus*

KENNETH PAXTON, *in his official capacity as Attorney General of Texas*,

*Defendant—Appellant.*

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Appeal from the United States District Court  
for the Western District of Texas  
USDC No. 1:21-CV-717

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Before ELROD, OLDHAM, and WILSON, *Circuit Judges*.

CORY T. WILSON, *Circuit Judge*:

Texas Attorney General Kenneth Paxton seeks a stay pending appeal of the permanent injunction that bars him from enforcing Texas Governor Greg Abbott’s Executive Order GA-38, which prohibits local governmental entities from imposing mask mandates. Mindful that “[a] stay is an intrusion



into the ordinary processes of administration and judicial review, and accordingly is not a matter of right,” *Barber v. Bryant*, 833 F.3d 510, 511 (5th Cir. 2016) (internal quotation marks omitted), and having considered the factors laid out by the Supreme Court in *Nken v. Holder*, 556 U.S. 418, 426 (2009), we conclude that a stay is warranted. Specifically, the Attorney General has demonstrated a strong likelihood of success on the merits and the prospect of irreparable injury absent a stay; has shown that maintaining the *status quo ante* pending appeal will not risk substantial injury to the plaintiffs; and, finally, that the public interest favors a stay. Accordingly, we STAY the district court’s permanent injunction pending resolution of this appeal on its merits.

## I.

Governor Abbott issued Executive Order GA-38 (“GA-38”) on July 29, 2021. GA-38 compiled and superseded other orders issued in relation to the Governor’s COVID-19 disaster proclamation of March 13, 2020. GA-38 provided, *inter alia*, that “[n]o governmental entity, including a . . . school district, . . . and no governmental official may require any person to wear a face covering or to mandate that another person wear a face covering[.]” This provision superseded “any face-covering requirement imposed by any local governmental entity or official,” and it exercised the Governor’s authority to suspend several Texas statutes.

Challenges to the validity of GA-38 under Texas state law were brought in various venues. On August 17, 2021, a little over two weeks after Governor Abbott issued GA-38, the parents of seven children who have Down syndrome, asthma, hypogammaglobulinemia, cerebral palsy, heart defects, bronchomalacia, bronchiectasis, spina bifida, and epilepsy, filed this action in federal district court on behalf of their children. All seven children are enrolled in Texas’s public schools. Most public schools in Texas began

in-person classes for the 2021–22 school year between August 9 and August 23, 2021.

In their complaint, plaintiffs sought a declaration that enforcement of GA-38 against public school districts violates federal law, specifically the Americans with Disabilities Act (“ADA”), 42 U.S.C. § 12131, the Rehabilitation Act, 29 U.S.C. § 794, the Individuals with Disabilities Education Act (“IDEA”), 20 U.S.C. § 1415(*l*), and the American Rescue Plan Act, Pub. L. No. 117-2, § 2001 (2021). Plaintiffs alleged that enforcing GA-38 against public school districts denied them a quality education based on their disabilities. They also sought preliminary and permanent statewide injunctive relief barring Attorney General Paxton from enforcing the order.<sup>1</sup> The Attorney General filed a motion to dismiss, asserting that plaintiffs lacked standing and, alternatively, that plaintiffs had failed to exhaust their administrative remedies before filing suit or to state *prima facie* claims.

Without issuing any preliminary relief, the district court held the motion to dismiss in abeyance and conducted a bench trial on October 6, 2021. On November 10, 2021, the district court issued an opinion finding that plaintiffs had standing to sue Attorney General Paxton, and that GA-38 violated the ADA and the Rehabilitation Act and was preempted by both of those statutes as well as the American Rescue Plan Act. Based on those findings, the district court permanently enjoined the Attorney General from enforcing GA-38 against public school districts “requiring masks.”

Attorney General Paxton appealed. He now seeks an emergency stay of the district court’s injunction pending the resolution of the appeal.

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<sup>1</sup> Initially plaintiffs also sought injunctive relief against the Commissioner of the Texas Education Agency and the Texas Education Agency itself. The district court subsequently granted a motion to dismiss the claims against both defendants.

## II.

The factors we consider in determining whether to grant a stay are by now axiomatic:

(1) whether the stay applicant has made a strong showing that he is likely to succeed on the merits; (2) whether the applicant will be irreparably injured absent a stay; (3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and (4) where the public interest lies.

*Nken*, 556 U.S. at 434 (quoting *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987)). The first two factors, the likelihood of success on the merits and a showing of irreparable injury absent a stay, “are the most critical.” *Id.* Because the district court issued its injunction after a bench trial, the merits panel of this court will eventually review the district court’s findings of fact for clear error and its legal findings *de novo*. *Providence Behav. Health v. Grant Rd. Pub. Util. Dist.*, 902 F.3d 448, 455 (5th Cir. 2018) (quoting *Coe v. Chesapeake Expl., L.L.C.*, 695 F.3d 311, 316 (5th Cir. 2012)). Viewing them through that same lens, we evaluate each of the *Nken* factors in turn.

### A.

First, likelihood of success on the merits. Attorney General Paxton offers four arguments to support his likely success on appeal. As a threshold matter, he asserts that plaintiffs lack standing because they have failed to demonstrate any injury-in-fact. Next, he argues that plaintiffs’ claims fail as a matter of law because plaintiffs did not exhaust their administrative remedies before filing suit as required by IDEA, *see* 20 U.S.C. § 1415(*l*); failed to state *prima facie* claims under either the ADA or the Rehabilitation Act; and because the American Rescue Plan Act does not provide any private right of action. Third, he disputes plaintiffs’ contention that GA-38 is preempted by federal law. Finally, he contends that the district court’s statewide injunction is overbroad and should, if not set aside entirely, be more narrowly tailored to provide plaintiffs relief in this case.

1.

Fundamentally, federal courts may only exercise jurisdiction over “‘Cases’ and ‘Controversies.’” *Ghedi v. Mayorkas*, 16 F.4th 456, 464 (5th Cir. 2021) (citing U.S. CONST. art. III, § 2). A “case” or “controversy” only exists when a party has standing. And standing exists only when the party plausibly alleges three elements: “(1) an ‘injury in fact,’ (2) that is ‘fairly . . . trace[able] to the challenged action of the defendant,’ and (3) that is ‘likely . . . redress[able] by a favorable decision.’” *Id.* (alterations in original) (quoting *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992)). Here, it is unlikely that the plaintiffs have standing to pursue their claims.

“To establish injury in fact, a plaintiff must show that he or she suffered ‘an invasion of a legally protected interest’ that is ‘concrete and particularized’ and ‘actual or imminent, not conjectural or hypothetical.’” *Spokeo, Inc. v. Robins*, 578 U.S. 330, 339 (2016) (quoting *Lujan*, 504 U.S. at 560). An alleged injury must clear each of these hurdles to confer standing. *See id.* at 340 (“We have made it clear time and time again that an injury in fact must be both concrete *and* particularized.”) (collecting cases); *Shrimpers & Fishermen of RGV v. Tex. Comm’n on Env’t Quality*, 968 F.3d 419, 424 (5th Cir. 2020) (“[E]ven if a petitioner’s increased-risk harms *are* particularized, they also must be actual or imminent.” (citations omitted)).

Granted, plaintiffs may well allege particularized harm given that each of them alleges a disability that leaves them particularly vulnerable during the pandemic. But they likely falter in showing any concrete, or actual or imminent, injury as a result of the enforcement of GA-38. Plaintiffs assert that the injury threatened by the enforcement of GA-38 “was and is the deprivation of meaningful access to in-person school,” or, as the district court characterized it, that plaintiffs “are either forced out of in-person learning altogether or must take on unnecessarily greater health and safety

risks than their nondisabled peers.” But plaintiffs have not shown that they face such an “either/or” choice as a result of GA-38, and the district court’s conclusion that they do was likely erroneous.

While plaintiffs disclaim that their alleged injury is “the increased risk of contracting [COVID-19] absent a mask mandate,” as the Attorney General asserts in his motion, at essence, their claims—and the district court’s injunctive relief—wholly rest on exactly that theory. Distilled down, their alleged harm—deprivation of access to in-person school—wholly derives from the assumption that the Attorney General’s enforcement of GA-38’s prohibition of local mask mandates increases plaintiffs’ risk of contracting COVID-19 while attending school. Such an assumption is, after all, the only alleged basis by which the plaintiffs could be “forced out of in-person learning.” But “[a] ‘concrete’ injury must be ‘*de facto*’; that is, it must actually exist. . . . When [the Supreme Court has] used the adjective ‘concrete,’ [it has] meant to convey the usual meaning of the term—‘real,’ and not ‘abstract.’” *Spokeo*, 578 U.S. at 340 (quoting BLACK’S LAW DICTIONARY 479 (9th ed. 2009); WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 472 (1971); RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE 305 (1967)).

The risks of contracting COVID-19 for these plaintiffs are certainly real, but the alleged injury to plaintiffs *from the enforcement of GA-38* is, at this point, much more abstract. This is so because the binary choice envisioned by the district court—either stay home or catch COVID-19—is a false one: it wholly elides the various accommodations available to the plaintiffs (e.g., distancing, voluntary masking, class spacing, plexiglass, and vaccinations) to

ensure a safer learning environment, regardless of GA-38's prohibition of local mask mandates.<sup>2</sup>

Beyond whether plaintiffs allege a “concrete” injury, they also likely fail to show any actual or imminent injury as a result of the enforcement of GA-38. This is so because “[i]ncreased-risk claims—even when they are particularized—often cannot satisfy the ‘actual or imminent’ requirement.” *Shrimpers & Fishermen of RGV*, 968 F.3d at 424. Indeed,

Much government regulation slightly increases a citizen's risk of injury—or insufficiently decreases the risk compared to what some citizens might prefer. . . . Opening the courthouse to these kinds of increased-risk claims would drain the “actual or imminent” requirement of meaning [and] expand the “proper—and properly limited”—constitutional role of the Judicial Branch beyond deciding actual cases or controversies. . . .

*Id.* (quoting *Pub. Citizen, Inc. v. Nat'l Highway Traffic Safety Admin.*, 489 F.3d 1279, 1295 (D.C. Cir. 2007) (Kavanaugh, J.)) (cleaned up). As noted above, given the other preventative measures available to plaintiffs and the schools they attend, any injury-in-fact arising from the enforcement of GA-38 appears speculative or tentative, not actual or imminent. *Cf. Ghedi*, 16 F.4th at 465 (concluding that the alleged injury was “real and immediate” and thus conferred standing).

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<sup>2</sup> Even assuming that plaintiffs' alleged injury is the deprivation of access to in-person public education, on the record before us, any deprivation also appears to be attributable to choices made by plaintiffs, not Attorney General Paxton. In other words, any injury alleged by plaintiffs would be “self-inflicted,” as the Attorney General contends, and thus insufficient to confer standing. GA-38 does not bar plaintiffs' physical access to school or require them to resort to virtual learning. Nor do Attorney General Paxton's actions in enforcing GA-38 hinder access, given the other available accommodations discussed above the line.

Lastly, Plaintiffs may lack standing to assert their claims against the Attorney General because they cannot show that any injury “is ‘likely . . . redress[able] by a favorable decision.’” *Id.* at 464 (quoting *Lujan*, 504 U.S. at 560–61). If GA-38 remains enjoined, neither plaintiffs nor Attorney General Paxton has the authority to impose mask mandates in particular schools. Plaintiffs allege that their schools would do so, but nothing in the relief afforded by the district court would require the schools to remedy plaintiffs’ alleged injury via local mask mandates.

For these reasons, plaintiffs have likely failed to demonstrate standing.

## 2.

Beyond the question of plaintiffs’ standing, their claims likely fail on the merits as a matter of law. The record indicates that the plaintiffs have not exhausted their administrative remedies under IDEA. *See* 20 U.S.C. § 1415(*l*). Reviewing this issue *de novo*, we conclude, contrary to the district court, that the plaintiffs were likely required to do so before bringing their ADA or Rehabilitation Act claims in court.

When a plaintiff “seeks redress for a school’s failure to provide a [free appropriate public education]” IDEA applies, even if the complaint is “not phrased or framed in precisely that way.” *Fry v. Napoleon Cmty. Schs.*, 137 S. Ct. 743, 755 (2017). IDEA requires that “before the filing of a civil action under [the ADA and the Rehabilitation Act] seeking relief that is also available under this subchapter, [administrative] procedures . . . shall be exhausted[.]” 20 U.S.C. § 1415(*l*). The plaintiffs’ arguments that GA-38 denies them an appropriate in-person state-sponsored education in violation of the ADA and the Rehabilitation Act likely fall under the auspices of the IDEA’s administrative exhaustion requirements.

To determine if IDEA applies, courts generally must answer two questions: “First, could the plaintiff have brought essentially the same claim

if the alleged conduct had occurred at a public facility that was *not* a school . . . [a]nd second, could an *adult* at the school—say, an employee or visitor—have pressed essentially the same grievance?” *Fry*, 137 S. Ct. at 756. If both questions can be answered in the negative, IDEA and its administrative exhaustion requirements apply.

The district court framed the *Fry* questions around plaintiffs’ physical access to their schools, concluding that IDEA’s administrative exhaustion requirements were not antecedent to plaintiffs’ claims because they could have brought “essentially the same claim” against another public facility, and an adult at the school could “have pressed essentially the same grievance.” *See id.* Setting aside the logical import of the district court’s analysis—namely, that any plaintiff could insist upon a mask mandate at any public facility or assert an ADA or Rehabilitation Act claim based on the entity’s failure to impose one—the court’s analysis misapprehends the gravamen of plaintiffs’ claims. Plaintiffs do not really center their claims on a deprivation of physical access, even though they focus on in-person education at school.

Instead, the plaintiffs at base allege something very particular: the deprivation of an in-person state-sponsored education because of their risk of contracting COVID-19 without a mask mandate. Could such a claim be brought against “a public theater or library?” *Id.* Arguably no, as the plaintiffs seek to enjoin GA-38 in order to allow their schools to impose mask mandates, which they contend are necessary for them to receive an in-person education on par with other students. The essential aspect of plaintiffs’ claims, access to in-person learning, could not be levied against “a public facility that was *not* a school.” *Id.* As to the second question, a non-student adult at the school could obviously not press the same grievance because he or she would not be at the school to access in-person learning. Because IDEA likely applies, and because nothing in the record establishes that plaintiffs



pursued any administrative remedies before filing suit, the district court likely lacked jurisdiction over their claims for this reason as well.

Even if a failure to exhaust remedies does not bar plaintiffs' claims, the record is devoid of evidence that plaintiffs have made any requests for reasonable accommodation under the ADA or the Rehabilitation Act. Glossed over in both plaintiffs' briefing and the district court's opinion is any acknowledgment that plaintiffs are not entitled to their preferred accommodation, but only a reasonable accommodation, and that "[i]t is the plaintiff's burden to request reasonable accommodations." *Jenkins v. Cleco Power, LLC*, 487 F.3d 309, 315 (5th Cir. 2007). The district court's analysis rests on the faulty premise that the *only* accommodation available to plaintiffs is their schools' ability to impose mask mandates. But as discussed above, there are any number of other ways schools could accommodate plaintiffs' disabilities without traversing either GA-38 or federal law.

Regardless, a request for reasonable accommodation is generally a part of a prima facie case for relief under the ADA and Rehabilitation Act. *E.g.*, *Smith v. Harris Cnty.*, 956 F.3d 311, 317–18 (5th Cir. 2020) (citing *Windham v. Harris Cnty.*, 875 F.3d 229, 237 (5th Cir. 2017)). Without evidence that they requested some reasonable accommodation, plaintiffs would have to demonstrate that the reasonable accommodation they proposed to the court, a mask mandate, was necessary and obvious. *Id.* (quoting *Taylor v. Principal Fin. Grp., Inc.*, 93 F.3d 155, 165 (5th Cir. 1996)). Given the availability of vaccines, voluntary masking, and other possible accommodations—options barely acknowledged by either plaintiffs or the district court—the record before us likely does not support the conclusion that a mask mandate would be both *necessary* and *obvious* under the ADA or the Rehabilitation Act. Plaintiffs thus likely fail to make out a prima facie case under either statute.

3.

Next, the Attorney General disputes the district court’s conclusion that the ADA, the Rehabilitation Act, and the American Rescue Plan Act preempt GA-38. Federal law can preempt state actions in three situations: first, Congress may expressly preempt state actions; second, Congress can so comprehensively legislate in an area that States have no ability to supplement Congress’s enactments; and third, state actions can directly conflict with federal action. *City of Morgan City v. S. La. Elec. Co-op. Ass’n*, 31 F.3d 319, 322 (5th Cir. 1994) (citing *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 203–04 (1983)). State action can directly conflict with federal action if “a provision of state law may be incompatible with a federal statute such that compliance with both is a ‘physical impossibility[,]’ . . . [or] if its application would disturb, interfere with, or seriously compromise the purposes of the federal statutory scheme.” *Id.* (quoting *Pac. Gas & Elec. Co.*, at 204, 220–21).

The district court’s holding that the ADA and the Rehabilitation Act preempt GA-38 is seemingly based on the premise that application of GA-38 would make it impossible for schools to comply with the ADA or the Rehabilitation Act, or would interfere with the purposes of those federal laws, because a mask mandate would be the only way to provide plaintiffs an in-person public education. But, as outlined above, and bearing in mind that IDEA’s exhaustion requirement may well bar this argument from the outset, that does not appear to be the case. Other means exist to control the spread of COVID-19 in school settings like vaccination, social distancing, plexiglass, and voluntary mask wearing. Plaintiffs are not entitled to their preferred accommodation under the ADA and Rehabilitation Act if other reasonable accommodations are available. Accordingly, it does not appear that GA-38 renders it a “physical impossibility” for schools to comply with the ADA or the Rehabilitation Act, or that GA-38 “would disturb, interfere with, or

seriously compromise the purposes of” either law. *Id.* Therefore, it was likely erroneous for the district court to hold that GA-38 was preempted by either the ADA or the Rehabilitation Act.

Further, to the extent this argument is even properly before us,<sup>3</sup> we do not read the American Rescue Plan Act to preempt GA-38’s prohibition of local mask mandates, as the district court did. The district court based its conclusion on excerpts from the Department of Education’s rule of April 22, 2021, relating to use of American Rescue Plan Act funds by local educational agencies. That rule provides that funds can be used “for a wide variety of activities related to educating students during the COVID-19 pandemic . . . including universal and correct wearing of masks[.]” American Rescue Plan Act Elementary and Secondary School Emergency Relief Fund, 86 Fed. Reg. 21,195–96 (Apr. 22, 2021). The rule further clarifies that a local education agency must include a plan publicly maintained on its website that states “how it will maintain the health and safety of students . . . and the extent to which it has adopted policies, and a description of any such policies, on each of the CDC’s safety recommendations including: Universal and correct wearing of masks[.]” *Id.* at 21,200–01.

Rather than requiring local educational agencies to adopt universal masking, the American Rescue Plan Act requires local educational agencies to *communicate* with the public regarding what requirements, if any, it maintains regarding masking, and why. GA-38 does not interfere with this responsibility, other than removing localized mask mandates from the range

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<sup>3</sup> The plaintiffs’ argument that the American Rescue Plan Act provides a private cause of action is tenuous at best. And the district court’s bald invocation of the Supremacy Clause and its equitable jurisdiction fails to fill the gap. We discern no language in the act, and plaintiffs point us to none, that appears to create such an action. For this additional reason, plaintiffs’ claims, to the extent they are based on the American Rescue Plan Act, likely fail as well.

of policies and practices for safe operation of schools, so it was likely error for the district court to conclude that GA-38 was preempted on this ground.

**4.**

Finally, assuming that plaintiffs' claims are otherwise viable, at a minimum, the district court's blanket injunction prohibiting the enforcement of GA-38 in all public schools across the State of Texas is overbroad. Injunctions must be narrowly tailored within the context of the substantive law at issue to address the specific relief sought. *Scott v. Schedler*, 826 F.3d 207, 211 (5th Cir. 2016) (quoting *Doe v. Veneman*, 380 F.3d 807, 818 (5th Cir. 2004)). This means that an injunction cannot "encompass more conduct than was requested or exceed the legal basis of the lawsuit." *Id.* at 214 (citing *Veneman*, 380 F.3d at 819). First, the injunction could have been tailored to address only the seven plaintiffs in this action, as well as their school districts. More generally, the district court's injunction could also have been tailored to require only individualized accommodations by schools, on a case-by-case basis, while leaving GA-38's general ban on mask mandates in place. Imposing a broad-brush injunction to prohibit enforcement of GA-38 in all schools in Texas was likely erroneously overbroad.

For all these reasons, Attorney General Paxton has made the requisite showing of a likelihood of success on the merits of his appeal, favoring a stay pending appeal.

**B.**

The other *Nken* factors also favor a stay pending appeal. We briefly address each of them.

As for irreparable injury absent a stay, the second *Nken* factor weighs in favor of the Attorney General because "[w]hen a statute is enjoined, the State necessarily suffers the irreparable harm of denying the public interest

in the enforcement of its laws.” *Veasey v. Abbott*, 870 F.3d 387, 391 (5th Cir. 2017) (citing *Maryland v. King*, 567 U.S. 1301, 1303–04 (2012) (Roberts, C.J., in chambers); *Walters v. Nat’l Ass’n of Radiation Survivors*, 468 U.S. 1323, 1324 (1984) (Rehnquist, J., in chambers)). While this case centers on an executive order issued by the Governor under his emergency authority rather than enforcement of a statute enacted by the plenary legislative authority of the people, the same reasoning applies. *See* TEX. GOV’T CODE § 418.012 (The Governor’s “[e]xecutive orders, proclamations, and regulations have the force and effect of law.”). In our “system of federal courts representing the [n]ation, subsisting side by side with 50 state judicial, legislative, and executive branches, appropriate consideration must be given to principles of federalism in determining the availability and scope of equitable relief.” *Rizzo v. Goode*, 423 U.S. 362, 379 (1976) (citing *Doran v. Salem Inn, Inc.*, 422 U.S. 922, 928 (1975)). Here, those principles counsel acknowledgement that Texas’s public officials are charged with carrying out Texas’s public policy, and enjoining those officials and that policy injures the state. *See Mi Familia Vota v. Abbott*, 834 F. App’x 860, 864 (5th Cir. 2020) (per curiam) (granting stay to Texas; noting that an executive order has “the force and effect of law,” so the State “suffers the irreparable harm of denying the public interest in the enforcement of its laws”); *accord Richardson v. Tex. Sec’y of State*, 978 F.3d 220, 243 (5th Cir. 2020) (holding that an injunction requiring exercises of authority by the Texas Secretary of State irreparably harmed Texas (quoting *Veasey*, 870 F.3d at 391)).

Next, in considering whether issuance of a stay pending appeal will substantially injure the other party, “the maintenance of the status quo is an important consideration in granting a stay.” *Barber*, 833 F.3d at 511 (internal quotation marks omitted) (quoting *Dayton Bd. of Educ. v. Brinkman*, 439 U.S. 1358, 1359 (1978)). GA-38 has been in effect since July 29, 2021. Since the plaintiffs filed this action on August 17, 2021, they have not requested

emergency relief, and the district court never entered any preliminary relief, despite plaintiffs' request for a preliminary injunction in their complaint. That procedural posture, coupled with the tenuous and speculative nature of the injury alleged by plaintiffs to result from GA-38's prohibition of local mask mandates, tends to establish that preservation of the *status quo ante* will not substantially injure plaintiffs. Thus, this factor favors a stay, i.e., maintaining the status quo by leaving GA-38 in effect, pending appeal.

Finally, where the public interest lies. Our analysis of the fourth *Nken* factor follows much of our analysis of the second factor. As Attorney General Paxton argues, when "the State is the appealing party, its interest and harm merge with that of the public." *Veasey*, 870 F.3d at 391 (citing *Nken*, 556 U.S. at 435). For this reason, the fourth factor also weighs in favor of a stay.

#### IV.

For well over a year and a half now, every American has grappled with navigating the safest course through an unpredictable pandemic and its continuing effects on our nation in the face of risk, disruption, and shifting guidance. None of our above discussion should be taken to suggest that plaintiffs—and their parents—do not have legitimate concerns about the pandemic or the risks they face from COVID-19. But, at least at this preliminary stage, it is unclear that plaintiffs have stated any injury-in-fact sufficient to confer standing, or that either GA-38, or Attorney General Paxton's actions in enforcing it, result in any cognizable deprivation of plaintiffs' access to in-person public education.

Because we conclude the *Nken* factors weigh in favor of granting a stay pending the resolution of this appeal on its merits, Attorney General Paxton's emergency motion is GRANTED, and the district court's injunction prohibiting the enforcement of GA-38 in Texas public schools is hereby STAYED pending appeal.